



# Chapter 4

## Infrastructure: Enabling California to Perform

Public infrastructure is integral to delivering public services, fostering economic growth and enhancing the quality of life. Infrastructure is comprised of eight core activities: Housing, Transportation, Water, Energy, Infrastructure finance, Research and Development, Planning and Assets Management.

California has an immense inventory of public infrastructure. The state owns almost 2.5 million acres of land, 200 million square feet of built space, 20,000 owned and leased structures, and 15,000 miles of highways. Local governments own thousands of schools, water treatment facilities, streets, jails, libraries, and parks.

**Case Study:** Moving to coordinated healthy housing policy.

Housing and infrastructure are like red and white blood cells. For healthy communities to survive there must be a balance between the two. Changes in infrastructure such as transportation, water, and energy directly affect housing just as changes in the demand for housing directly affects infrastructure. Housing efforts are increasingly under siege from other statewide mandates, regulations and requirements, such as water standards, transportation constraints and prevailing wage requirements. In addition, housing production is often thwarted by local opposition from anti-sprawl and not-in-my-backyard (NIMBY) groups.

Compared with other infrastructure needs such as transportation, energy and water, California has neglected to effectively develop, prioritize and implement statewide policies for housing and growth. The link between housing, jobs and infrastructure should be the focus of statewide efforts to address both housing and infrastructure needs in equal measure.

California is in dire need of a coordinated statewide housing policy. There are currently four separate state entities active in subsidizing housing: the Department of Housing and Community Development (HCD), the California Housing Finance Agency (CalHFA), the Tax Credit Allocation Committee (TCAC) and the California Debt Limit Allocation Committee (CDLAC). Each of these entities is accountable only to its separate boards or governing bodies. They administer programs targeted at specific housing needs. Many of these individual programs require separate application, administration and monitoring processes. This ineffective administration increases costs

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and reduces the number of units actually constructed. Each of the four groups also relies on a variety of funding sources. For example, CalHFA focuses on single family housing through its first-time homebuyer and mortgage insurance programs using tax-exempt bonds, while HCD and TCAC predominately subsidize multifamily housing projects with federal and state monies and tax credits. These disparate programs need to be consolidated and streamlined, placing a greater emphasis on meeting statewide policies and goals.

The state's population is growing. This will require a broad range of new public infrastructure projects to maintain our current standards. Under the current system this would add billions of dollars in construction, operation and maintenance costs. However, California also needs to manage its budget more efficiently and reduce the deficit.

Infrastructure management needs to be more productive. This means both finding ways to deliver more from our current resources and ways to deliver the same for less.

### ***Recommendations***

**The California Performance Review's recommendations aim to improve productivity by making fundamental changes in infrastructure planning, operations and delivery. There are two core changes proposed. First, to reorganize the state's infrastructure departments under a comprehensive infrastructure agency and authority. Second, to streamline the state's infrastructure operations to provide more productive operations and management.**

#### ***1. Reorganization***

Current infrastructure decision-making involves 25 separate state departments, agencies and commissions as well as many more local and special interest groups. Each of these bodies has a role in deciding what, where and how infrastructure should and should not be built.

The reorganization will consolidate these 25 entities into one new integrated department, the Infrastructure Department. This will have overall decision-making and policy setting authority of the 25 entities and creates one clear line of accountability to the Governor. The new integrated department will also have responsibility for ensuring California's infrastructure supports the intelligent growth and economic development in the state.

The infrastructure reorganization includes creation of an appointed Infrastructure Authority. The Infrastructure Authority will be comprised of nine members who have the responsibility of overseeing all facets of the state's infrastructure. The Authority will consider infrastructure investments on a programmatic level, and have the ability to ensure appropriate funds are available for infrastructure improvements and maintenance. The Secretary of Infrastructure will chair this Authority as well as oversee the Infrastructure



Agency. The Secretary of Infrastructure supervises nine Undersecretaries who will lead each of the state's Infrastructure Divisions.

These Infrastructure Divisions are:

- Water;
- Transportation;
- Boating and Waterways;
- Energy;
- Housing, Buildings, and Construction;
- Telecommunications;
- Planning, Programming, and Evaluation;
- Finance; and
- Research and Development.

This new organization will allow the state to research, plan and ultimately fund infrastructure with a comprehensive view. The state will be able to examine competing proposals across infrastructure within a context of its overall infrastructure needs, priorities, and funding capabilities; and, with the Authority's ability to generate and manage revenue streams, adequate funding for lifecycle costs of the state's infrastructure needs will be addressed for existing infrastructure as well as when approving new.

The reorganization will also realign the division's roles and responsibilities with the primary work that it was created to do as well as what it does best. For example, currently the planning for infrastructure occurs at the agency or department level. Each department creates its own vision of the state's future from various sources. As a result, California is relatively strong on project planning by individual agencies but weak on statewide planning and strategy. The reorganization will leverage these strengths and abolish the weaknesses by coordinating all infrastructure planning into a single division, and then adopting individual projects based upon an overarching statewide priority and need across all infrastructure.

Additionally, the reorganization will reduce the amount of duplication found within the current departments and establish clear lines of accountability.

**Case Study:** Creating accountability in state energy policy.

State government mismanagement contributed significantly to the energy crisis that California endured in the fall and winter of 2000-2001 and has continued to put the state at a competitive disadvantage and slow down our economic recovery.

The electricity crisis of 2000-2001 serves as an illustration of how state government can do a great disservice to the people by failing to fulfill its basic obligation to provide for the security of its citizenry. Government inaction, mismanagement and jurisdictional turf

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battles combined to help bring about a meltdown in the infrastructure and systems that provide Californians with a basic necessity of life.

Over the years, California lawmakers and regulators have created numerous bureaus, departments and commissions that regulate or monitor various aspects of the systems on which we rely to bring us an uninterrupted supply of electricity for use in our daily lives. California's energy regulatory framework and its energy policies have been fragmented. State government agencies don't work together or coordinate their regulatory policies, and often pursue contradictory approaches to the regulation and delivery of electricity to the people of the state.

For instance, California created one agency to plan for and grant licenses to build powerplants to provide the electricity needed to meet the increasing demands of our growing population and support our economic engine. A different state bureaucracy manages and authorizes the construction and upgrading of electric transmission lines. These separate bureaucracies often do not coordinate their activities and planning. As a result, the electricity transmission system has not kept pace with shifting patterns of consumption. It has been increasingly difficult to transmit power from where it is generated to places in the state where it is most needed.

All energy facilities and related infrastructure approvals should be consolidated into one approving authority. Regulatory functions should be separated from policy, planning and program management responsibilities.

With reorganization, infrastructure decisions and investments will be improved and efficiencies realized by removing duplication and contradiction.

## **2. *Streamlining processes and the way the state works***

In addition to reorganization, recommendations were developed to focus on processes that removed duplication of effort, streamlined accountabilities, reduced costs at no drop in service and increased service with no increase in cost.

A number of the recommendations address the state's ability to use advanced tools and methods in the delivery of infrastructure products and services. For example, the vast majority of new infrastructure projects are delivered using virtually the same method design-bid-build. In these models the state contracts with a single entity at an agreed price to handle all aspects of the project including operations and long term maintenance. In this way the entity is unlikely to make decisions in upfront costs that will reduce building costs but lead to high maintenance costs as they are contracted for both elements. This method has proven to be more timely and oftentimes more efficient.



Other recommendations address strengthening fiscal management tools, techniques and policies. For example, Governor's Executive Order S-10-04 states that the management of the state's vast infrastructure assets is disjointed and inefficient. Several recommendations propose establishing better processes and organizational structures to make sure the state is truly managing its assets portfolio in a way that benefits programs and minimizes cost.

Improving services to customers and making decisions transparent by moving the authority and accountability for infrastructure business decisions to the lowest level are a key focus of other recommendations. For example, there is a specific recommendation that proposes moving all decisions that impact a project's scope, cost or schedule to the Project Manager and then holding them accountable for those decisions. Other recommendations propose the development of certification processes wherein approvals such as new schools that are currently centralized or at a statewide level could be devolved to other levels of government or the private sector.

The specific issue recommendations coupled with the implementation of the reorganization proposal will give the state the ability to deliver to the people of California an infrastructure that is meeting their needs.





# Use of Few Models for Project Delivery Results in Missed Opportunities for Lowering Cost and Speeding Delivery

## **Issue**

Infrastructure project delivery is typically done via the “design-bid-build” process. By using more innovative delivery methods the state will save both time and money.

## **Background**

Most of California’s infrastructure projects are delivered by the traditional design-bid-build process, with the selection of the building contractor based upon lowest price. Utilizing this delivery process, the California Department of Transportation (Caltrans) estimates that delivery of a State Transportation Improvement Program project to reduce traffic congestion takes about seven years. Considering that California has the busiest highways in the nation, new project delivery methods need to be considered.<sup>1</sup>

California has temporarily used a variety of alternative project delivery methods including design-sequencing, design-build, design-build-operate, and public-private partnerships. However, there is no authorization in place to utilize these infrastructure project delivery methods on a permanent basis.

## **Design-sequencing**

Design-sequencing is a method of contracting that enables the sequencing of design activities to permit construction activities to commence when design for that phase is complete. The design-sequencing method is often referred to as “fast track design.”

For example, using this method in the construction of a steel-framed building would allow the structural engineering to be completed first so that the steel could be ordered in advance of groundbreaking. The legislature approved a pilot program to evaluate the effectiveness of the design-sequencing delivery process for state transportation projects. Through the program, construction bids were awarded to a single contractor even though the contractor’s construction plans were not finalized. This arrangement allowed the contractor to work with Caltrans engineers to incorporate innovative design and construction methods into the final plans.

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The advantages of design-sequencing include the following:

- Quicker delivery of the project;
- Innovative construction methods get earlier consideration; and
- Potential for cost savings due to project constructability.

The disadvantages include the following:

- Owner still assumes significant risk, and
- Burden placed on owner for timely decisions and products.

According to Caltrans, three projects have been delivered using design-sequencing. These projects were completed, on average, 10 months faster compared to following the traditional design-bid-build process.<sup>2</sup> Even with these successes, design-sequencing remains in pilot program status, with one project remaining to be selected. Existing legislation may extend the pilot program until January 2007.<sup>3</sup>

### ***Design-build and design-build-operate***

The design-build process allows the owner or client to select an organization that will complete both the project design and construction under one agreement, and upon completion the owner is responsible for the operation and maintenance of the project. The design-build-operate method is similar except that the owner selects an organization to not only design and build the project, but also to maintain and operate the finished project under certain parameters. Upon termination of the operational period, the owner would then assume maintenance and operations.

The advantages of design-build or design-build-operate model include the following:

- Faster delivery because design and construction is assigned to a single party allowing for some construction to begin before design is complete;
- Reduction of administrative and inspection costs;
- Single contact and accountability for quality, cost, and schedule;
- Allows for maximum flexibility and innovation in design, materials and construction methods;
- Reduction or elimination of change orders and claims due to errors and omissions;
- Commonly includes a warranty;
- With design-build-operate, the ability to also have the facility maintained for a period of time under a single contract; and
- With design-build-operate, maintenance and operations can be more integrated into design and construction.

The disadvantages include the following:

- Potential to limit competition;
- Less direct control over the project;





- Difficult culture change to a performance-based approach; and
- Owner is required to make quicker decisions.

Use of design-build and design-build-operate has spread throughout the country for a variety of infrastructure development projects with promising results. For example, the City of Seattle expects to save \$50 million during the 25-year period of the design-build-operate contract for its new Cedar Treatment Facility.<sup>4</sup> The State of Minnesota was able to shorten project delivery by more than six years, saving taxpayers an estimated \$30 million on the reconstruction of State Route 52.<sup>5</sup> In addition, design-build contracts have been the preferred delivery method on federally-funded transit projects for years.<sup>6</sup>

### ***Public-private partnership***

Public-private partnerships can be a valuable tool in times of government funding shortages. The partnerships allow the private sector to invest in public works projects. They are also a tool to transfer risk from taxpayers to private firms. The State Commission on Building for the 21<sup>st</sup> Century notes there is a need for approximately \$100 billion in infrastructure improvements during the next decade, and that “government cannot bridge the infrastructure gap alone.”<sup>7</sup> In the State of Virginia, the \$318 million Pocahontas Parkway-Route 895 project utilized 94 percent private financing through provisions of Virginia’s Public-Private Transportation Act of 1995.<sup>8</sup>

California has some experience with public-private partnerships for transportation improvements. In 1989, California enacted legislation, Assembly Bill 680, that called for Caltrans to seek bids from private firms for up to four projects that would be financed, built and operated by the private sector without any state or federal dollars. Although some projects were ultimately delivered under this law, there were flaws and lessons to be learned. Specifically, “non-compete” terms were included to protect bondholders of the private investment. The way these non-compete provisions were written precluded Caltrans from making any capacity-enhancements to the freeway. While the intent is logical, the application proved impossible to administer. Future non-compete provisions need to be defined in functional terms such as “level of service.”

Nearly two dozen other states allow public-private partnerships or other innovative project delivery methods to assist in providing much needed infrastructure improvements to their citizens.

### ***Job order contracting***

Job order contracting is a firm, fixed-price, competitively bid, indefinite quantity procurement process that has proven successful for small to medium-sized public works projects. Job order contracting was developed by the military in the 1980s to overcome problems with the traditional design-bid-build process. Using design-bid-build, every project, no matter how

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small, had to be designed and put out to bid with the award going to the lowest bidder.<sup>9</sup> With job order contracting, the owner first develops a catalog of anticipated construction tasks, with unit prices and standard specifications. Contractors then bid the work, with adjustment factors. As the owner has needs for projects, the contractor would break the project down into tasks and prepares a proposal based upon the unit prices, and the adjustment factor. The owner reviews the proposal, and when satisfied, issues a work order. The owner would inspect the work, approve payment and close the project consistent with standard practice.<sup>10</sup>

Typically, job order contracts are written to define the overall relationship between the owner and contractor. Generally, contracts are for a specified term, along with minimum and maximum dollar value for work to be awarded during the term.

Although the use of job order contracting is relatively new, there have been promising results in the reduction of time, costs and administration. Contra Costa County reports that on nine projects built utilizing this process, the time to issue a project was reduced an average 41 days. Additionally, the county realized an average savings of seven percent on construction costs, and savings of 59 percent administrative costs.<sup>11</sup>

The use of job order contracting in California is extremely rare. This is due, in part, to ambiguity within the Public Contract Code (PCC). The Attorney General has defined the job order method as a form of an annual contract. Annual contracts are limited by the PCC to general law cities and counties, and to the state's college university system. The cities of San Diego and San Luis Obispo, and the City and County of San Francisco have all enacted charter amendments allowing job order contracting. Since the PCC is silent on expressed authorization for state agencies to use job order contracting, there has been reluctance to do so.<sup>12</sup>

Advantages of job order contracting include the following:

- Simplified procurement process;
- Quicker response to needs;
- Flexible scheduling by owner; and
- Cost savings.

Disadvantages include the following:

- Owners initial investment in developing unit price book;
- Difficulty anticipating all required tasks over the contract term; and
- Learning curve of staff, and contractors.

### ***Recommendations***

- A. **The Governor should work with the Legislature to permit the use of a suite of contracting methods for infrastructure projects by all public entities. The methods should include, but not be limited to, design-sequencing; design-build; design-build-operate; public-private partnerships; and job order contracting.**



Any legislation for contracting methods should also include the following:

- Full public access;
- Competitive bidding, with qualifications presented under penalty of perjury;
- Recognition of all labor laws, workplace safety, and other applicable regulations; and
- Any “non-compete” terms defined in functional terms.

**B. The Governor should direct the Business, Transportation, and Housing Agency, or its successor, to establish criteria for deciding the most appropriate contracting method.**

After the ability to utilize a variety of delivery methods has been established, departments or their successor entities should work with experts, and stakeholders including local governments and the design and construction industry to develop criteria that can be utilized by decision-makers to determine the “best-fit” delivery model. These criteria should be designed to aid, not constrain, flexible decision-making. The criteria and subsequent training would need to be delivered to decision-makers.

***Fiscal Impact***

Legislation to permit the use of a suite of contracting methods for infrastructure projects by all public entities should lead to cost savings and faster delivery of projects. However, because these actions will depend on the legislation, the projects, and agency actions, the savings resulting from these recommendations cannot be estimated.

Much of the benefit of these project delivery models is the ability to deliver more quickly projects to California taxpayers. Caltrans indicates that design-sequencing projects are delivered 12 percent sooner than traditional design-bid-build projects. Additionally, a survey from the Construction Industry Institute demonstrated an average six percent lower cost and 33 percent faster delivery for infrastructure projects.<sup>13</sup>

The fiscal impact of public-private partnerships cannot be estimated. However, there is potential for significant cost savings to the state. For example, an entity could decide to construct light rail, or build toll roads, and recover the costs over a period of years. In many of these instances, the facility would provide benefits to the taxpayer with little or no up-front investment.

Job order contracting has great potential for reducing costs on the smaller, more routine infrastructure projects completed by the state. Caltrans spends approximately \$140 million a year on its maintenance programs, the Department of Parks and Recreation spends about \$4 million a year on minor projects, and the Department of Water Resources funds about \$10 million per year on smaller projects. These programs match the desired profile for job order contracting.

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## Endnotes

- <sup>1</sup> University of North Carolina, *"The Looming Highway Condition Crisis: Performance of State Highway Systems 1984–2002 13<sup>th</sup> Annual Report,"* by David T. Hartgen, Ph.D., P.E. (Charlotte, North Carolina, February 9, 2004), p. 26.
- <sup>2</sup> California Department of Transportation, *"Third Annual Report to the Legislature AB 405 and 2607 Design Sequencing"* (Sacramento, California, March 2003), p. 4.
- <sup>3</sup> California Legislature, Senate. Senate Bill 1210 (Torlakson), introduced February 10, 2004, current legislative session 2003–2004.
- <sup>4</sup> City of Seattle, *"Public Utilities,"* Seattle, Washington, April 2001 (press release).
- <sup>5</sup> Minnesota Department of Transportation, *"Mn/DOT's First Design-Build, Best Value Highway Project,"* Minneapolis, Minnesota, November 1, 2002 (news release).
- <sup>6</sup> The Transportation Equity Act for the 21<sup>st</sup> Century, Pub. L. No. 105-178, Section 1307, June 9, 1998.
- <sup>7</sup> California Business, Transportation, and Housing Agency, *"Invest for California, California Commission on Building for the 21<sup>st</sup> Century"* (Sacramento, California, February 27, 2002).
- <sup>8</sup> The National Council for Public-Private Partnerships, *"Case Studies Pocahontas Parkway,"* <http://www.ncppp.org/cases/pocahontas.html> (last visited June 15, 2004).
- <sup>9</sup> The Cooperative Purchasing Network, *"Job Order Contracting for Novices,"* <http://www.tcpn.org/JOC/JOCforNovices.pdf> (last visited June 15, 2004).
- <sup>10</sup> The Gordian Group, *"Job Order Contracting Can Cut Costs, Improve Bidding Effectiveness,"* by Paul R. Schreyer and Harry H. Mellon (New York, New York, 2004).
- <sup>11</sup> Contra Costa County Department of General Services, *"Job Order Contracting Program Summary Report, July 1, 2003–November 10, 2003"* (Contra Costa County, California, November 10, 2003), p. 4.
- <sup>12</sup> The Gordian Group, *"Job Order Contracting,"* presentation to the California Performance Review, Sacramento, California (May 25, 2004).
- <sup>13</sup> Construction Industry Institute, *"Construction Industry Institute Survey on Project Delivery,"* presented at Design-Build Institute of America Annual Convention, Chicago, Illinois, October 14–16, 1998.



# Adopt Performance and Warranty Specifications to Improve the Quality of Highway Construction

## **Summary**

California is unable to take advantage of best practices and technologies that would reduce lifecycle costs, and potentially lead to higher quality facilities because warranties for highway construction projects have not been widely deployed. The state should use warranty and performance specifications for highway construction projects.

## **Background**

Since the advent of road construction in the early 1900s, state agencies have utilized method-based specifications to obtain the desired end product. Method-based specifications are like a recipe for construction. Method-based specifications require the contractor to produce and place a product using specified materials in definite proportions and to utilize specific types of equipment and methods under direction of the owner.<sup>1</sup> Method-based specifications served their purpose well in the early days of highway construction. However, as industry matured, the realization that dictating the exact materials and processes to be used on a project had a stifling effect on innovation. In addition, because the contractor followed the methods dictated by the specifications, there is no guarantee that the best available product was delivered. These factors have led to the development of specifications that were more focused on the final product rather than the process. These are typically referred to as “performance specifications.”

Performance specifications describe how the finished product should perform over time.<sup>2</sup> For a variety of reasons, most states, the Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), and the European Union have all begun implementing performance specifications. The reasons driving the move towards performance specifications include the following:

- Adding private sector innovation;
- Promoting best practices to improve quality; and
- Transferring risk away from the owner.

The process of incorporating performance specifications has been slow. Barriers to implementation include difficulty in determining good performance criteria and measures, potential impacts to contractors’ performance bonds and a drastic change in corporate culture. As the trend towards performance specifications continues, many of these issues are disappearing and the benefits are showing.

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For example, the State of Wisconsin experienced a 36 percent improvement in highway ride quality on pavement projects using performance specifications.<sup>3</sup> Comparing lifecycle costs on these same projects, Wisconsin saw about a 10 percent savings. Wisconsin has been so satisfied that it is looking to utilize warranties and performance specifications on a number of other projects and construction products.

Because the use of performance or warranty specifications decreases the reliance on construction activity inspection, agencies are able to focus more on the development of performance requirements. The United Kingdom is in the process of changing all its contracts for construction to those that are functional-based. These functional-based contracts have specific language on performance of the entire project over time. The bid documents for the project reflect these performance standards, and no specifications that define “how” to build the project exist.<sup>4</sup>

Last year Caltrans reported that it began using warranty specifications for asphalt concrete as far back as 1993.<sup>5</sup> Caltrans says that of the eight projects with warranty specifications that were developed between 1993 and 2001, seven projects are listed as still performing well, while the eighth, an experimental project, was ultimately corrected at no cost to the taxpayer.

In 2000, Caltrans decided to expand its pilot project to include 30 more asphalt pavement jobs, which were to be constructed using performance specifications. Caltrans notes that all the projects constructed to date are performing well.

Even as new specifications and products are introduced and proven to be successful in other states and countries, Caltrans is slow in adopting these measures for its projects. According to representatives from the Federal Highway Administration (FHWA), the process to modify and adopt new specifications at Caltrans takes a significant amount of time. This may be attributed to limited experience and background of engineers working on specifications, the inability of Caltrans engineers to collaborate with other states on specifications and the overall review time by the various functional units within Caltrans.<sup>6</sup>

The current process appears to be inefficient due to much of the review of draft specifications being performed sequentially. This is problematic in that identified concerns or changes at any step can result in a re-start of the process. Caltrans has attempted to address some of the process issues by engaging industry representatives earlier and more often. As California is not alone in this transition, there are resources for assistance. For example, FHWA is leading an organization called the Transportation Curriculum Coordination Council (TCCC). TCCC is a partnership between FHWA, State Departments of Transportation and the highway transportation industry to support the training of the highway construction personnel.





TCCC's mission is to provide leadership at a national level, develop and maintain a national curriculum for various transportation disciplines, identify training and certification requirements and coordinate training efforts.<sup>7</sup>

### **Recommendations**

- A. The Secretary of the Business, Transportation and Housing Agency, or its successor entity, should end the “pilot” status for warranty specifications of asphalt concrete pavement, and make performance specifications standard practice.**

The goal is that a warranty for asphalt concrete is Caltrans preferred business model. A non-warranty for asphalt pavements is the exception. Guidance and training for staff involved in design and construction may be required, but it should be minimal as there is already a basic understanding of warranties. Because of the national trend toward performance and warranty specifications, the impact on a contractor's bonding ability is waning.

- B. The Director of the Department of Transportation, or its successor entity, should be involved with FHWA and AASHTO Committees and activities related to performance specifications, and adopt findings from those groups.**

The Department of Transportation (Caltrans), or its successor entity, should become a member of TCCC and leverage training and best practices from TCCC for applicable staff. Additionally, Caltrans staff should be involved in committees sponsored by FHWA or AASHTO that are evaluating and deploying performance and warranty specifications. As these committees develop new specifications, Caltrans, or its successor entity, should immediately include those specifications within its toolbox. To accomplish this recommendation, key decision-making division employees need the ability to travel out-of-state. Staff should have the ability to be involved with these committees, and should be sufficiently empowered to deploy best practices from elsewhere into specifications approved by Caltrans or its successor entity.

- C. The Secretary of the Business, Transportation and Housing Agency, or its successor entity, should establish a multi-discipline team to streamline the specification approval process. The team should re-engineer the process to eliminate duplicate work, and to seek opportunity for parallel reviews. Any new process should include a clear definition of the exact parties that need to be involved in review and an accelerated involvement of decision-makers. The new process should include a marketing strategy, performance measures with reporting mechanism and a tracking process.**

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**D. The Secretary of the Business, Transportation and Housing Agency, or its successor, should establish a policy that will allow for a performance specification that has been adopted by another state, and approved by FHWA, to be available for use as a special provision.**

### ***Fiscal Impact***

By using warranty specifications on highway pavement projects, owners can recognize a 10 percent savings on the lifecycle costs.<sup>8</sup> Caltrans estimates that it costs about \$4,022 per lane mile annually to maintain the pavement on the approximately 52,000 lane miles of the State Highway System.<sup>9</sup> Caltrans reports that annually, about 7000 lane miles are overlaid or rehabilitated with asphalt concrete pavement.<sup>10</sup> The use of pavement warranties could reduce the cost of annual maintenance by up to \$2.8 million on annual pavement projects. When fully implemented, the use of pavement warranties could achieve savings of up to \$21 million annually. Savings should be expected to begin in Fiscal Year 2005–2006.

**Transportation Funds**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$2,800	\$0	\$2,800	0
2006–07	\$5,600	\$0	\$5,600	0
2007–08	\$8,400	\$0	\$8,400	0
2008–09	\$11,200	\$0	\$11,200	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

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### **Endnotes**

- <sup>1</sup> AASHTO Highway Subcommittee on Construction, “Major Types of Transportation Construction Specifications: A Guide to Understand their Evolution and Application” (Washington, D.C., August 2003).
- <sup>2</sup> Transportation Research Board, “Transportation Research Circular E-CO37” (Washington, D.C., April 2002).
- <sup>3</sup> Wisconsin Department of Transportation, “Asphaltic Pavement Warranties Five-Year Progress Report” (Madison, Wisconsin, June 2001).
- <sup>4</sup> Federal Highway Administration, “Performance Specifications Strategic Roadmap” (Washington, D.C., July 2003).
- <sup>5</sup> Department of Transportation, “Pilot Warranty Evaluation” (Sacramento, California, July 21, 2003).
- <sup>6</sup> Interview with Jason Dietz, Construction and Materials Engineer, Federal Highway Administration, Sacramento, California (April 22, 2004).





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- <sup>7</sup> Federal Highway Administration, "Transportation Curriculum Coordination Council Fact Sheet," Washington, D.C., January 2004 (fact sheet).
- <sup>8</sup> Wisconsin Department of Transportation, "Asphaltic Pavement Warranties Five-Year Progress Report."
- <sup>9</sup> Letter from Tony Harris, acting director, Department of Transportation, to Joan Borucki, California Performance Review (April 2004).
- <sup>10</sup> Department of Transportation, "State of the Pavement Based on the 2002 Pavement Condition Survey" (Sacramento, California, January 2004), p. 19.





# The State is not Taking Advantage of all Opportunities to Reduce the Cost of Construction Contracts

## **Summary**

The state's insurance and bonding requirements for large state construction projects result in unnecessary costs. The state should explore using different methods to obtain sufficient insurance for its large construction projects and lower some of its bonding requirements.

## **Background**

When contractors bid on infrastructure projects they are required to have sufficient insurance coverage and bonding to guarantee the successful completion of the project. Insurance can be purchased to cover a variety of potential losses, including general liability, design errors and omissions and workers' compensation. The cost for insurance coverage and bonding is part of the contractor's administrative costs and is ultimately included as part of the bid. Contractors frequently will also include in their bids a margin for profit above the actual costs of the insurance or bonding.<sup>1</sup>

## **Owner controlled insurance programs**

To lower bid costs, the state has been using owner controlled insurance programs (OCIPs). With an OCIP, the state purchases the insurance necessary to cover all contractors and subcontractors for the construction project on one policy. This removes the cost of insurance from the bids. The OCIP can help reduce costs because it allows the state to buy insurance coverage in bulk, rather than paying each contractor and subcontractor to purchase individual insurance policies. The state may also establish one OCIP for several construction projects, called a rolling owner controlled insurance program (ROCIP). Both types of OCIPs are available for use in California and have been used by the Department of General Services (DGS), Office of Insurance and Risk Management, for numerous construction projects.<sup>2</sup>

The most obvious benefit to using OCIPs is lower insurance costs. For example DGS saved over \$3 million using an OCIP for the construction of a state complex in Sacramento called the East End project.<sup>3</sup> The OCIP has been used in other states with similar results. In Utah, the state saved about \$30 million on its construction project involving Interstate 15 in Salt Lake City.<sup>4</sup>

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Another benefit to using OCIPs is that they provide a comprehensive safety program. The safety program included in many OCIPs covers the entire workforce, and improves safety through training, awareness and better inspections. A well-developed and administered safety program reduces risk and allows insurers to lower premiums. In practice, safety awareness is heightened because all parties, including the state, have a vested interest in keeping injury claims down.<sup>5</sup>

The OCIPs also can result in increased participation of small or underutilized contractors in construction projects. Small contractors often have difficulty obtaining insurance necessary to participate in large construction projects. An OCIP would allow small contractors to be properly insured on large projects more easily.<sup>6</sup>

One drawback to OCIPs is that they require additional administration by the state. For example, when the state uses an OCIP, it is responsible for developing and ultimately managing the OCIP contract itself and managing the risk on the insured project. This may require developing and maintaining safety standards. Even with associated administrative costs, however, experts indicate using OCIPs will still save about 1–3 percent of a project's capital cost.<sup>7</sup>

### ***Bonding***

Performance bonds are required by the state. They ensure that if the selected contractor is unable to deliver the project, sufficient funds will be available to finish the project. With infrastructure construction projects, much of the cost is typically incurred during the earlier portions of the contract. Therefore, should the contractor fail to perform, the cost of completing the project is always less than the total cost of the project. Because of this, some private developers (i.e., "owners") have changed the bonding requirements to an amount less than 100 percent of the actual bid price of the contract. The industry standard seems to be about 60 percent of the bid price.<sup>8</sup>

The owner does assume some risk, because the bonding agent will only be responsible for the amount bonded. This risk is mitigated rather quickly, however, because it is rare for bonds to be forfeited before some work has been completed, or a substantial amount of materials have been delivered. Allowing less than 100 percent bonding provides a savings to the owner because the lower bond costs to the contractor are reflected in the bids submitted for the project. The cost of bonding is an administrative cost to the contractor, and bonding for less amount of money is less costly to the contractor.

### ***Master builders risk insurance program***

All contracts for state-finance capital outlay projects are required to include builders risk insurance to protect against property loss during construction.<sup>9</sup> During constructions, projects face unique risks. For example, they are subject to more damage from the elements than are



completed structures, their values do not remain stable and the materials used in construction may be owned by different parties during the course of construction. In addition, the materials may be in transit, on the job site or stored off site.<sup>10</sup>

This also complicates the notion of ownership. While the state may own the land, a contractor or subcontractor may own the building materials. At any point in time, the ownership interests may vary. Since the state and its contractors are both part-owners of the insured property, disputes may arise over claims payments since both may rightly have claims to any builders risk insurance proceeds.<sup>11</sup>

Contractors have little incentive to keep builders risk insurance costs down since they are able to pass those costs on to the state and mark up the cost of the coverage they procure, generally by 15 percent or more.<sup>12</sup>

Establishing a builders risk insurance program would allow the state to purchase a single master policy to protect the property and construction materials, eliminating the need for each contractor or subcontractor to purchase their own policies. This alone would save money, since the state would not be paying a markup. In addition, the state would be in a position to purchase policies for less, obtain better coverage and negotiate more favorable terms and conditions. Projects would also be less subject to delays caused when contractors must scurry to purchase the required insurance after being awarded a contract.

Management consultants have recommended that the state procure builders risk insurance coverage for its construction projects whether or not it uses a consolidated approach for other coverage.<sup>13</sup>

### **Recommendations**

- A. The Secretary of the Business, Transportation and Housing Agency or its successor entity, the Secretary of State and Consumer Services Agency or its successor entity, and the Secretary of the Resources Agency or its successor entity should begin utilizing OCIPs for infrastructure projects.**

Current law authorizes the state's use of OCIPs or ROCIPs on construction programs exceeding \$50 million. Agency secretaries or their successor entities should look at their existing programs and determine if there are individual projects, or programs that could use OCIPs. Agencies or their successor entities should work with the Department of General Services (DGS) Office of Insurance and Risk Management or its successor entity to develop and issue a Request for Proposal to the insurance market. As part of its services provided, DGS or its successor entity should manage the OCIP for each division's portfolio. Departments or their successor entities should make OCIPs part of their normal toolbox.

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- B. The Secretary of the Business, Transportation and Housing Agency or its successor entity, the Secretary of the State and Consumer Services Agency or its successor entity, and the Secretary of the Resources Agency or its successor entity should establish a pilot program that revises state performance bond requirements, including lowering them where appropriate.**

Under this pilot, the performance bond requirement amount will be lower than 100 percent of the bid price of the project. While each project is different, the industry standard appears to be around 60 percent of capital cost.<sup>14</sup> Departments or their successor entities should monitor these projects carefully to determine the appropriate amount of bond coverage necessary, and analyze savings resulting from the pilot. Within two years, the Secretaries or their successor entities should establish either a revised bond amount, or appropriate criteria for setting bond amounts.

- C. The Governor should work with the Legislature to amend Government Code Section 11007.7 to specifically authorize the establishment of a Builders Risk Insurance Program, and to allow state departments administering capital outlay projects to participate in the builders risk insurance program whenever possible.**

### ***Fiscal Impact***

Industry estimates OCIPs save about 1–3 percent of the construction cost.<sup>15</sup> An OCIP is not appropriate for all jobs. It is estimated a minimum of 20 percent of all capital projects from the Department of Finance 2003 California Five-Year Infrastructure Plan could use OCIPs.<sup>16</sup> Twenty percent of all capital projects in the plan represent about \$11 billion in capital costs. With an estimated savings of 1 percent, the state could save about \$110 million over the next five years.

Considering that many departments are specially funded, these savings will not go to the General Fund, but could be used for additional needed infrastructure projects.

Additional savings from lowering performance bond thresholds are more difficult to estimate as any savings won't be explicit, but will be reflected in the bid prices received. Lower bid prices, however, ultimately will leave more money for additional infrastructure projects, from which taxpayers will directly benefit.

The state would also save money by establishing a Builders Risk Insurance Program. It would cost nothing to set up, since the state would use that portion of the funds appropriated for construction of each project that would otherwise be used to purchase insurance. Like OCIPs, the state would reduce the cost paid for builders risk insurance policies by administering a broad consolidated Builders Risk Insurance Program covering all projects under one policy or rating plan. Actual savings, however, cannot be determined at this time.



**Special Funds**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$16,500	\$0	\$16,500	0
2005–06	\$22,000	\$0	\$22,000	0
2006–07	\$22,000	\$0	\$22,000	0
2007–08	\$22,000	\$0	\$22,000	0
2008–09	\$22,000	\$0	\$22,000	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> Thelen, Reid & Priest LLP, "Owner Controlled Insurance Programs: Why Owners Like Them and Why Contractors May Not" (July 14, 2003 Newsletter).
- <sup>2</sup> Gov. C. Section 4420 and interview with Susan Hogg, chief, California Department of General Services, Office of Insurance and Risk Management, Sacramento, California (May 4, 2004).
- <sup>3</sup> California Department of General Services, "Owner Controlled Insurance Program Stewardship Report for the Capitol Area East End Project OCIP" (Sacramento, California, July 30, 2003).
- <sup>4</sup> U.S. General Accounting Office, "Transportation Infrastructure: Advantages and Disadvantages of Wrap-Up Insurance in Large Construction Projects" (Washington, D.C., June 1999).
- <sup>5</sup> Interview with Susan Hogg.
- <sup>6</sup> Transportation Research Board of the National Academies, "Owner Controlled Insurance Programs: A Synthesis of Highway Practice" (Washington, D.C., 2002).
- <sup>7</sup> Interview with Kenneth Caldwell, executive vice president, AON Risk Services, Sacramento, California, April 26, 2004.
- <sup>8</sup> Interview with Kenneth Caldwell.
- <sup>9</sup> Excerpt from Department of General Services' General Terms and Conditions, Construction contract.
- <sup>10</sup> League of Minnesota Cities, Risk Management Information, "Builders Risk Insurance, Insuring Buildings in the Courses of Construction, Alteration, or Repair," pp. 1–4.
- <sup>11</sup> League of Minnesota Cities, Risk Management Information, "Builders Risk Insurance, Insuring Buildings in the Courses of Construction, Alteration, or Repair," pp. 1–4.
- <sup>12</sup> California Department of General Services, "Owner Controlled Insurance Program Review," by Ron Rakich & Associates (Sacramento, California, August 2002), p. 31. (Consultant's report.)
- <sup>13</sup> California Department of General Services, "Owner Controlled Insurance Program Review," by Ron Rakich & Associates (Sacramento, California, August 2002), p. 32. (Consultant's report.)
- <sup>14</sup> Interview with Kenneth Caldwell.
- <sup>15</sup> Interview with Kenneth Caldwell.
- <sup>16</sup> California Department of Finance, "2003 California 5 year Infrastructure Plan" (Sacramento, California).







# Performance Measures Are Needed in Traffic Operations

## **Summary**

Californians rely on a well-planned and maintained highway system that allows them to travel relatively easily, within a predictable amount of time. The California Department of Transportation (Caltrans) has not implemented a performance-based measurement system to measure the department's progress toward achieving its goals of transportation system mobility and reliability. Without performance measures, California state government is making spending decisions for future transportation needs without the proper tools.

## **Background**

Performance measures for traffic operations performance typically are used for two primary purposes: to provide information to the public on highway conditions and to provide information to decision-makers involved in short- and long-term planning. Performance measures are used to monitor a system, identify problems, develop improvements, measure results, and implement changes as needed.<sup>1</sup> In traffic operations, such measurements may include the number of vehicles on a specific route, the travel time and the number of traffic incidents. The analysis of performance measures reveals trends that can then be used to produce desirable outcomes, such as mobility and reliability.<sup>2</sup>

Transportation performance measures can be used at the project level to select design features that improve operation and at the policy level to allow decision-makers to evaluate the benefits of proposed transportation projects.<sup>3</sup> Without monitoring and evaluating the various aspects of the transportation system, it is difficult to determine how the system should be improved or expanded.

According to the Streets and Highways Code 167(a), the highest priority for programming and expending State Highway Account funds is the operation, maintenance and rehabilitation of the state highway system. Caltrans has consistently allocated the majority of the funds to capital project delivery (about 62 percent the last few years versus 2 percent for operations over the same period).<sup>4</sup> Large sums of money are being spent on new highways that may only be providing 50 percent of their capacity during peak commute periods due to congestion when traffic demands are highest. Building new highways will not solve congestion problems without efficient management of the existing highway system.<sup>5</sup>

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### ***Lengthy and complicated approval process should be expedited***

Caltrans has been working for several years on a Transportation Management System (TMS) Master Plan that describes the business processes, tools and communications systems needed to operate the state's transportation system in the most cost effective manner. This Master Plan focuses on the various strategies used to make the transportation system operate more efficiently. These strategies are: monitoring and evaluation of the state highway system, traffic incident management, traveler information and traffic control.<sup>6</sup> Full implementation of this plan is expected to take ten years.<sup>7</sup>

As a first step in the TMS process, Caltrans contracted with the University of California at Berkeley, through its Partners for Advanced Transit and Highways (PATH) program. This group developed a pilot program known as the "Freeway Performance Measurement System" (PeMS) in 1998. The purpose of this program was to monitor and evaluate freeway operation trends over a two or three year period by collecting historical and real-time data from the highway system at two primary locations in the state. This research pilot program is completed and now needs to be implemented statewide.<sup>8</sup>

A Feasibility Study Report (FSR) is required for projects identified as information technology (IT) projects, and the FSR must be approved by the Department of Finance (DOF). At the time Caltrans contracted with UC Berkeley for the research program, Caltrans had delegated authority for transportation-related projects and was exempted from the FSR process. The Department of IT rescinded that delegation in August 1999 after the PeMS program had already been initiated. DOF has directed Caltrans to prepare two separate FSRs, one for the completed research program and one to cover the work from the research to statewide implementation of the research, each of which needs separate approval. These documents have been developed and are in Caltrans' internal approval process.<sup>9</sup>

Although an FSR is not required for the TMS Master Plan, the Plan itself does require DOF's approval. The TMS Master Plan and the PeMS program components should be considered a transportation project, not an IT project, and should not be subject to the same feasibility study and approval process as IT projects. The DOF has indicated that it will not approve the TMS Master Plan until it has approved the two FSRs for the PeMS research and for implementation of the research. The longer this process takes, the longer the public may be experiencing congestion that could be relieved by implementing this Plan.<sup>10</sup>

### ***Potential socioeconomic benefits***

A recent Caltrans analysis suggests that almost half of the urban freeway system in California during peak congestion periods provides a level of productivity that is 25 to 35 percent below planned levels. Simply put, the lack of these TMS projects results in traffic congestion that limits the flow of traffic by that 25 to 35 percent. Without improving the efficiency of the existing highway system, expenditures to increase vehicle-carrying capacity of the roadways will not be enough to keep up with growth in traffic demand.<sup>11</sup>



The potential benefits of the TMS Master Plan are calculated as the dollar value associated with: travel time savings, vehicle operating cost savings, emissions reductions and safety benefits. These figures represent benefits to the state's motorists based on information developed on two primary corridors (Interstate 405/5 and Interstate 680) and extrapolated to apply on a statewide basis. If the TMS Master Plan were implemented within ten years, the expected benefits would be as follows:<sup>12</sup>

### **Exhibit 1. Potential Socioeconomic Benefits Associated with Transportation Management System Implementation**

<b>Potential Socioeconomic Benefits</b> (dollars in thousands) <sup>13</sup>			
<b>Fiscal Year</b>	<b>Benefits</b>	<b>Annual Costs</b>	<b>Net Benefits</b>
2004–05	\$0	\$0	\$0
2005–06	\$312,000	\$54,000	\$258,000
2006–07	\$372,000	\$56,000	\$316,000
2007–08	\$487,000	\$163,000	\$324,000
2008–09	\$611,000	\$169,000	\$442,000

If the implementation of the TMS Master Plan were accelerated from ten years to eight years, costs would be about \$100 million the first year and about \$150 million per year for the next seven years and benefits would increase accordingly.

#### ***Public-private partnerships***

Public-private partnerships are increasingly being used to carry out activities using performance-based contracts. Under a performance-based contract, the agency defines its objectives and lets the contractor decide how best to meet them. Together, the agency and the contractor choose performance measurements to gauge the effectiveness of a solution.<sup>14</sup>

An example of such a business model is a July 2003 Agreement in Concept under which Caltrans is partnering with the U.S. Department of Transportation (DOT) and a private-sector contractor to fill gaps in traffic data collection in California and provide travel information to the public via broadcast and other media. Eighty percent of the project cost, or roughly \$2 million, is being paid by the U.S. DOT and the remainder is being paid by state, local and private-sector. The private sector contractor would locate, own, operate and maintain the data collection system as well as the supporting infrastructure. Caltrans would have no operational or financial responsibility for the system but could use the data for traffic management and planning purposes, and distribute it to other governmental agencies, researchers and contractors providing services back to the government for non-commercial purposes.<sup>15</sup>

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Although such a contract would not meet all of the needs in terms of traffic performance measures, it is a good starting point for public-private partnerships for data collection. If Caltrans contracts with a private entity to conduct the data collection portion of the TMS Master Plan, Caltrans would still need about one-quarter of the total anticipated PYs (or 15 of 60 PYs) the first year. Caltrans would then need about 15 percent of the total PYs (or 18 of 120 PYs) each year thereafter for seven years to administer the contracts and process and utilize the TMS data.

### ***Recommendations***

- A. The Governor should direct the Business, Transportation and Housing Agency (BTH), or its successor, to implement the Transportation Management System (TMS) Master Plan.**

Ninety percent of the TMS Master Plan should be implemented within eight years, starting with fiscal 2005–06. Implementation of this master plan will constitute a major step towards helping the Division of Transportation to achieve its goals of transportation system mobility and reliability.

- B. The Governor should direct BTH, or its successor, to increase the priority for funding TMS projects in the State Highway Operation and Protection Program and the Interregional Transportation Improvement Program for Fiscal Year 2005–06 and thereafter.**
- C. The Secretary of the BTH, or its successor, should direct the Department of Transportation to work with regions to include TMS projects in the Regional Transportation Improvement Program.**
- D. The Governor should direct BTH or its successor to expand the use of public-private partnerships to implement the TMS Master Plan activities through performance-based contracts.**
- E. The Secretary of the BTH or its successor should work with the state's Chief Information Officer to develop an agreement stipulating that TMS components constitute transportation projects, not information technology (IT) projects, and are not subject to the same feasibility study and approval process as IT projects.**

### ***Fiscal Impact***

To implement the TMS Master Plan within eight years, the California Department of Transportation (Caltrans) estimates that \$150 million must be budgeted per year, after the initial year. The first year, \$100 million would be required to inventory and repair the existing data collection system and begin implementation of new inventory. Then, \$150 million would be expended per year over the next seven years to implement the processes related to traffic



detection, incident management, arterial signal management, traveler information and ramp metering.<sup>16</sup>

According to Caltrans, the first year would require about \$6 million for support services. About 75 percent of that sum would be dedicated to labor, expressed in personnel years (PY). Based on an annual salary and benefits of \$75,000, 60 PYs would be required. Each year thereafter, about \$12.7 million would be needed for support services. At 75 percent dedicated to labor, 127 PYs would be required.<sup>17</sup>

The cost and number of PYs might be reduced by out-sourcing the work through performance-based contracts to carry out data collection and analysis. If Caltrans contracts with a private entity to conduct the data collection portion of the TMS Master Plan, Caltrans would still need about one-quarter of the total anticipated PYs (or 15 of 60 PYs) the first year. Caltrans would then need about 15 percent of the total PYs (or 19 of 127 PYs) each year thereafter for seven years to administer the contract and process and utilize the TMS data.

#### State Highway Account (dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	\$0	\$0	0
2005–06	\$0	\$100,000	(\$100,000)	60
2006–07	\$0	\$150,000	(\$150,000)	127
2007–08	\$0	\$150,000	(\$150,000)	127
2008–09	\$0	\$150,000	(\$150,000)	127

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> *Performance (A TQ Point/Counterpoint Exchange with David T. Hartgen and Lance A. Neumann, by David Hartgen, "Transportation Quarterly," Vol. 56, No. 1 (Washington, D.C., Winter 2002), p. 5.*
- <sup>2</sup> *California Department of Transportation, Division of Transportation System, Information, District 12, "Transportation System Performance Measures, State of the District System Report" (Orange County, California, 2002), p. 4.*
- <sup>3</sup> *Transportation, Research Board, National Cooperative Highway Research Program (NCHRP), "Performance Measures of Operational Effectiveness for Highway Segments and Systems, NCHRP Synthesis 311" p. 9, (Washington, D.C. 2003), [http://hovpfs.ops.fhwa.dot.gov/resources/uploaded\\_main\\_files/NCHRP\\_Syn\\_311.pdf](http://hovpfs.ops.fhwa.dot.gov/resources/uploaded_main_files/NCHRP_Syn_311.pdf) (last visited June 18, 2004).*
- <sup>4</sup> *Legislative Analyst's Office, "Analysis of the 2004–05 Budget Bill," Legislative Analyst's Office, February 2004, [http://www.lao.ca.gov/analysis\\_2004/transportation/trans\\_04\\_2660\\_anl04.htm#\\_Toc63832790](http://www.lao.ca.gov/analysis_2004/transportation/trans_04_2660_anl04.htm#_Toc63832790) (last visited June 18, 2004).*

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- <sup>5</sup> California Department of Transportation, Office of System Management Operations, "Transportation Management System (TMS) Master Plan (Draft Report for Review Only)," by Cambridge Systematics, Inc. in association with System Metrics Group, Inc. (Sacramento, California), p. 2, 8. Interviews with John Wolf, Department of Transportation, Traffic Operations, Office of System Management Operations, Sacramento, California (March 24, May 10, and May 11, 2004); and e-mails from John Wolf to California Performance Review (March 24, May 10, and May 11, 2004).
- <sup>6</sup> California Department of Transportation, Office of System Management Operations, "Transportation Management System Master Plan;" and interviews with John Wolf.
- <sup>7</sup> California Department of Transportation, Office of System Management Operations, "Transportation Management System Master Plan, Financial Plan Report," (draft report, in approval process), by Cambridge Systematics, Inc. in association with System Metrics Group, Inc. (Sacramento, California, September 2002); Section 6, Benefit Analysis and Section 7, Benefit-Cost Analysis; interviews with John Wolf; e-mails from John Wolf; interviews with Fred Dial; Sacramento, California (May 12 and May 13, 2004); and e-mails from Fred Dial, California Department of Transportation, Traffic Operations, Office of Systems Management Operations, to California Performance Review (May 12 and May 13, 2004).
- <sup>8</sup> California Department of Transportation, Office of System Management Operations "Transportation Management System Master Plan;" and interviews with John Wolf.
- <sup>9</sup> California Department of Transportation, Office of System Management Operations, "Transportation Management System Master Plan;" and interviews with John Wolf.
- <sup>10</sup> California Department of Transportation, Office of System Management Operations "Transportation Management System Master Plan;" and interviews with John Wolf.
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- <sup>13</sup> California Department of Transportation, Office of System Management Operations "Transportation Management System Master Plan, Financial Plan Report;" interviews with John Wolf; e-mails from John Wolf; interviews with Fred Dial; and e-mails from Fred Dial.
- <sup>14</sup> FCW.com, FCW Media Group, "Performance-Based Contracting Ascends," <http://www.fcw.com/fcw/articles/2003/0526/pol-perf-05-26-03.asp> (last visited June 18, 2004).
- <sup>15</sup> U.S. Department of Transportation, "Intelligent Transportation Infrastructure Program, Agreement in Concept with the California Department of Transportation and Mobility Technologies, Inc.," (July 28, 2003).
- <sup>16</sup> California Department of Transportation, Office of System Management Operations "Transportation Management System Master Plan," Financial Plan Report; interviews with John Wolf; e-mails from John Wolf; interviews with Fred Dial; and e-mails from Fred Dial.
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# Need for High-Occupancy/ Toll Facilities to Reduce Traffic Congestion and Generate Revenue to Cover Project Costs

## **Summary**

California has implemented toll lane projects in two locations in the state. To reduce traffic congestion and generate revenue, the state may need to incorporate this feature or a modified version of it into more state highways.

## **Background**

Managed lanes are dedicated lanes or roadways that preserve high-speed, reliable travel through various strategies. High occupancy vehicle (HOV) lanes and high occupancy/toll (HOT) lanes are types of managed lanes.<sup>1</sup> The major goal of an HOV or “carpool” lane is to improve the roadway efficiency by increasing the number of people it carries, while minimizing travel time.<sup>2</sup>

The Department of Transportation (Caltrans) database shows HOV lanes in 30 locations statewide, covering 1,159 lane-miles. All of the existing HOV lanes are designated HOV-2 (minimum occupancy of two or more), except four that are HOV-3, and two that are a combination, depending on the hour of the day. A *Los Angeles Times* editorial suggested that some of the state’s HOV facilities that are not operating at full capacity might be modified to allow access to single-occupancy vehicles (SOVs).<sup>3</sup> In California, certain types of occupancy exempt vehicles (e.g., motorcycles, low emission vehicles, emergency vehicles, buses and paratransit vehicles with no passengers, etc.) are already allowed to use the HOV lanes.

## **High occupancy/toll lane (HOT) concept**

In HOV lanes where ample space is available and travel time can be reduced, HOT lanes can provide an alternative source of revenue by allowing single occupancy vehicles access to those lanes at a flat or variable rate. The variable rate depends on the hour and the traffic demand during that period; the closer to the peak hour, the higher the price. Typically the HOVs travel in this same lane at no charge or at a reduced rate. Some former HOV drivers have stopped carpooling, and pay the toll so that they have more trip flexibility and the convenience of driving alone.<sup>4</sup> When an existing congested freeway is programmed for widening, the addition of a HOT lane in either direction may offer more benefits than adding either an HOV lane or a general-purpose lane. When a new freeway is to be built, it can be built with fewer lanes if a

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HOT lane concept with variable pricing is employed to limit demand during peak hours.<sup>5</sup> Because of physical constraints and funding options, this determination should be done on a case-by-case basis.<sup>6</sup>

Two HOT lane projects have been developed in California, on Interstate 15 (I-15) in San Diego and on State Route 91 (SR 91) in Orange County. On I-15, two HOV lanes were converted to HOT lanes as a demonstration project under the federal Congestion Pricing Pilot Program.<sup>7</sup> In September 2003 on I-15, it was reported that about 79 percent of the daily traffic on I-15 in those lanes consisted of HOVs and 21 percent of the traffic paid tolls. The toll revenues were about \$2.2 million in 2003. More HOT lanes are proposed to be built north of the existing toll lanes.<sup>8</sup>

The SR 91 Express Lanes in Orange County opened in 1995, with four new toll lanes in the median of one of the most heavily congested freeways in the state. Toll revenues have been adequate to pay for project construction and operating costs. Vehicles in the express toll lanes now carry about 40 percent of the traffic, traveling at 60 to 65 mph, while vehicles in the remaining four mixed lanes carry the remainder, traveling at about 20 mph.<sup>9</sup>

Though there are only two projects in California and one in Texas, several other states are taking a closer look at opportunities to convert HOV lanes to HOT lanes or to implement new HOT facilities. Example studies include:<sup>10</sup>

- New managed lanes in Dallas-Fort Worth, and a new four-lane managed roadway in Houston, Texas;
- An HOV-to-HOT conversion and four new HOT lanes in Denver, Colorado;
- Conversion and new construction of HOT lanes in Minneapolis, Minnesota;
- A two- and four-lane managed roadway system in North Carolina;
- An HOV-to-HOT conversion in Ft. Lauderdale, Florida;
- New HOT lanes in Portland, Oregon; and
- A managed lane system in Seattle, Washington.

More “managed lane” projects, with plans for HOT lanes, are proposed for Southern California, primarily in the San Diego area within the next 10–20 years. Assembly Bill (AB) 2032 will allow HOT lanes on Interstate 805 (I-805), SR 52 and Interstate 5 near I-805 in San Diego, as well as in the Bay Area on Interstate 680.

### ***Value pricing (HOT lanes and toll bridges)***

Value pricing involves charging a fee or toll to travel on a lane or roadway, which varies according to time of day (peak/off-peak) and day of week or by the level of congestion. The purpose of value pricing primarily is to manage demand by varying the price so that the roadway does not become congested. Higher tolls are usually charged when congestion is heaviest, while lower tolls prevail during periods of lowest demand.<sup>11</sup>





There have been concerns that HOT lanes would be used only by those with higher incomes.<sup>12</sup> Some studies show that this is not necessarily the case; lower income motorists use toll lanes when saving time is important. A study conducted for the SR 91 Value-Priced Express Lanes in 2000 indicated that there is a weak relationship between approval of variable tolls and income.<sup>13</sup> HOT lanes are being considered as a form of “congestion insurance” by solo drivers who are willing to buy their way into the restricted lane.<sup>14</sup>

The increasing use of value pricing to readily manage demand and/or offset costs has become easier with the development of electronic toll collection (ETC) technology. ETC equipment has been installed on all lanes at seven state-owned bridges in the Bay Area. Each year, about 134 million vehicles cross these bridges, generating about \$280 million in toll revenues. Of that amount, more than \$146 million are base toll revenues that are administered by the Metropolitan Transportation Commission (MTC) / Bay Area Toll Authority (BATA). The remainder is seismic retrofit surcharge revenue that is overseen by Caltrans.<sup>15</sup>

A study in 2003 comparing MTC/BATA practices with five other toll agencies across the country showed that the state-owned Bay Area bridges:

- Have the lowest percentage of motorists using the ETC, only 28 percent during peak hour versus 55 to 75 percent for other agencies;
- Have the lowest toll rates for two-axle vehicles at \$2 versus \$3–\$6 for other agencies (A \$1 surcharge is scheduled to be added in July 2004);
- Have the lowest percentage of toll lanes dedicated to ETC use at 11 percent versus 36 to 61 percent for the other agencies (additional lanes are scheduled to be added in 2004); and
- Do not provide a discount to ETC account holders, unlike the other agencies surveyed that offer a 10 to 33 percent reduction to ETC account holders during off-peak hours (BATA and Caltrans have plans to offer a \$1 discount to ETC account holders from July through October 2004 to attract new account holders).<sup>16</sup>

The toll structure is under the jurisdiction of the MTC/BATA. The present toll system offers motorists use of the bridges at the same price when the facilities are under-utilized (off-peak) as when they are in high demand. BATA allocates approximately 30 percent of the toll revenue to Caltrans for the cost of maintenance and operations associated with toll collection, but not for bridge maintenance. If BATA were to implement value pricing, bridge tolls could be set higher during peak periods, resulting in a “spreading” of the peak hour and may be adequate to cover bridge maintenance.

The cost of bridge maintenance for all toll bridges is essentially paid out of the State Highway Account. In Fiscal Year 2002–2003, maintenance costs were about \$10 million. In FY 2003–2004, maintenance costs are projected to be about \$6.8 million. The \$7 million needed to cover bridge maintenance costs is about 4.8 percent of the total revenues from toll collection.

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### ***Using public-private partnerships to fund toll projects***

The SR 91 Express Lanes project was the first under California's public-private partnership law, Assembly Bill 680. Fifteen states have followed suit in passing some form of legislation, allowing their state transportation departments to pursue the development of roadway improvements through public-private partnerships. In view of the state's ongoing budgetary problems, Caltrans may need to implement new high occupancy lane development through public-private partnerships.

### ***Recommendations***

- A. The Governor should work with the Legislature to authorize the Business, Transportation and Housing Agency (BTH) to determine the circumstances and conditions under which toll projects will be financed, developed and implemented.**
- B. The Secretary of BTH should work with the Department of Transportation to develop public-private partnerships for the implementation of high occupancy vehicle toll projects.**

While there is a trend to implement toll lanes on California highways and throughout the U.S., this should be done with discretion on a case-by-case basis due to physical constraints and funding conditions.<sup>17</sup>

- C. The Governor should work with the legislature to give the Bay Area Transportation Authority the authority to implement value pricing at the toll bridges under their jurisdiction.**
- D. The Governor should work with the legislature to specify that the cost of maintenance of all toll bridges under the jurisdiction of Caltrans should be paid out of toll revenues.**

### ***Fiscal Impact***

There are no net savings or costs to the General Fund. The proposal to charge bridge maintenance costs to the Bay Area Transportation Authority administered-toll revenue account would reduce the charges to the State Highway Account by about \$7 million. However, it is not possible to determine actual costs and benefits until the legislation passes.<sup>18</sup>

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### **Endnotes**

- <sup>1</sup> "Managed Lanes: Strategies Related to HOV/HOT," White Paper by the Transportation Research Board Systems Committee (A3A06) (September 2003), pp. 1, 4, 33–41.
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- <sup>3</sup> Robert W. Poole, Jr., "Don't Let Hybrids into HOV Lanes," editorial, "Los Angeles Times" (April 14, 2004), op-ed editorials.
- <sup>4</sup> Resources for the Future, "Are HOT Lanes a Hot Deal?," by Safirova, Gillingham, Harrington, and Nelson (Washington D.C., May 2003), pp. 5, 10. <http://www.rff.org/rff/Documents/RFF-IB-03-03.pdf> (last visited June 17, 2004).
- <sup>5</sup> Reason Public Policy Institute, Policy Study NO. 257, "Building a Case for Hot Lanes: A New Approach to Reducing Urban Highway Congestion," Robert W. Poole, Jr. and C. Kenneth Orski (April 1999), p. 8.
- <sup>6</sup> "High Occupancy Vehicle Facilities: A Planning, Operation and Design Manual," interviews with Charles Fuhs; and e-mails from Charles Fuhs.
- <sup>7</sup> Cofiroute Global Mobility, "Value Pricing Project Quarterly Report, Express Lanes on State Route 91, Orange County" (July–September 2003), p. 10.
- <sup>8</sup> San Diego Association of Governments, "Interstate 15 FasTrak, Project Summary," [http://www.sandag.ca.us/uploads/publicationid/publicationid\\_831\\_1641.pdf](http://www.sandag.ca.us/uploads/publicationid/publicationid_831_1641.pdf) (last visited June 17, 2004); and e-mail from Derek Toups, I-15 Project Management Team, April 19 and May 14, 2004.
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- <sup>11</sup> "Managed Lanes: Strategies Related to HOV/HOT."
- <sup>12</sup> Ed Wallace, "Do Lexus Lanes belong in a democracy?" *Star-telegram.com* (April 6, 2004), p.4.
- <sup>13</sup> California Department of Transportation, Traffic Operations Branch, "Continuation Study to Evaluate the Impacts of the SR 91 Value-Priced Express Lanes," by Edward Sullivan, Cal Poly State University (December 2000), [http://ceenve.calpoly.edu/sullivan/SR91/final\\_rpt/FinalRep2000.pdf](http://ceenve.calpoly.edu/sullivan/SR91/final_rpt/FinalRep2000.pdf) (last visited June 17, 2004).
- <sup>14</sup> Washington State Department of Transportation, "HOT Lanes, Pilot Project Analysis," Draft Report, November 13, 2003 (Olympia, Washington), p.2.
- <sup>15</sup> Bay Area Toll Authority (BATA), "Tolls and Traffic," <http://www.mtc.ca.gov/bata/tolls.htm> (last visited June 17, 2004).
- <sup>16</sup> Bay Area Toll Authority and California Department of Transportation, "Strategic Plan for the Electronic Toll Collection System—FasTrak on the San Francisco Bay Area State-Owned Toll Bridges," Traffic Technologies, Inc. (Oakland, California, February 2003).
- <sup>17</sup> "High Occupancy Vehicle Facilities: A Planning, Operation and Design Manual," interviews with Charles Fuhs, and e-mails from Charles Fuhs.
- <sup>18</sup> E-mail from Marvin Dong, staff services manager, California Department of Transportation, District 4, Maintenance Division, to California Performance Review (May 18, 2004).





# High-Performance Building Design

## **Summary**

Current state building design and operation standards do not incorporate cost-effective and high-performance building design practices, potentially costing the state millions of dollars each year. The state should adopt construction and operation standards that will ensure taxpayers are receiving the best value for their investment over the life of a building, while protecting the environment and providing a high quality work place.

## **Background**

The construction and operations of buildings significantly affect the economy and environment. In the United States, inhabitable buildings account for:

- 36 percent of all energy and 65 percent of electricity consumed;
- 30 percent of greenhouse gas emissions;
- 30 percent of raw materials used;
- 30 percent of waste output; and
- 12 percent of potable water consumed.<sup>1</sup>

California state government owns and operates more than 200 million square feet of building space, and occupies an additional 21 million square feet of leased space.<sup>2</sup> The state also invests more than \$1.7 billion annually in the design, construction and renovation of state facilities.<sup>3</sup> The cost of anticipated infrastructure needs, which include construction of state buildings, over the next ten years exceeds \$100 billion.<sup>4</sup>

A small number of state building projects demonstrate how high-performance building design practices can result in significant savings while having less of an impact on the environment. Preliminary findings suggest that the state could save as much as a \$1 per square foot annually if it instead focused on using high-performance building design practices.<sup>5</sup> The majority of state projects, however, are designed, constructed and operated based on the lowest price of initial construction.

## **Life-cycle costing**

Using high-performance building design practices would require a shift in the way the state projects how much a building will cost, called “life-cycle costing.” Life-cycle costing is a method of analyzing a project in which all costs arising from owning, operating, maintaining, and ultimately disposing of a project are considered. Life-cycle savings are calculated by comparing the expenditures over the life of a building that conforms to minimal state building code requirements with the same building constructed using high-performance design features. In 2003, the Public Policy Institute of California recommended the state adopt a life-cycle approach to project budgeting to allow for operational savings to be built into the upfront design and construction budgets of buildings.<sup>6</sup>

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The state is already required to use life-cycle costing. Specifically, state law requires the Department of General Services (DGS) to build buildings that use equipment that represent the lowest life-cycle cost to the state. State law also requires DGS to identify lists of building materials with the lowest life-cycle cost and the method that was used to determine the cost and distribute that information to state agencies. State agencies are required to purchase items from these lists or others that represent a lower life-cycle cost. These statutory requirements have not been implemented.<sup>7</sup>

### ***High-performance buildings***

Nationally, the private and public sectors are incorporating high-performance building design and operations into their construction programs. High-performance buildings use key resources such as energy, water, materials and land much more efficiently than buildings simply built to code. The design of these buildings is frequently referred to as “green” or “sustainable.” Investing in appropriate high-performance features on the front end of construction, such as dimmable lights and high-efficiency heating, ventilation and air conditioning systems, pays off during the life of the building, often many times over.<sup>8</sup>

The state’s Sustainable Building Task Force released an economic analysis report, *The Costs and Financial Benefits of Green Building*, in 2003 that laid the groundwork for policy-makers to use the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED™) Silver Rating as a guideline for future state facilities.<sup>9</sup>

The report concluded that using this rating as a guideline would increase initial design and construction costs up to 2 percent. The report also concludes that over 20 years, which is a very conservative building life-cycle, the high-performance design features would result in savings of up to ten times the initial incremental investment. The report indicates the factor contributing the most to increased upfront costs is the design team’s lack of expertise and familiarity with high-performance building techniques.<sup>10</sup>

The California Environmental Protection Agency (Cal-EPA) headquarters in Sacramento, California is an example of how the state can save money long-term through better design and operations. The building recently was rated as the most energy efficient high-rise building in the country by the federal Department of Energy’s Energy Star Building Rating system and received the first pilot USGBC LEED-EB™ Gold Rating.<sup>11</sup>

The building is managed by a private company whose building operators estimate that through innovative and aggressive building operations, the energy bill for the Cal-EPA building is 40 percent lower, and operations as a whole are \$1 per square foot less than the average in downtown Sacramento. In the first three years alone energy, water and waste savings totaled \$4.8 million.<sup>12</sup>



The Capital Area East End Complex provides another example of the benefits of better design. It is a \$392 million, five-building, 1.5 million square foot complex. It is the largest state government office building project in California's history and houses more than 6,000 state employees.<sup>13</sup> The complex contains a number of significant high-performance building features including the following:

- Energy efficiency measures, such as high-performance lighting, air conditioning and shell design, which save an estimated \$500,000 in annual energy costs;
- "Cool roofing" material that reflects sunlight and reduces cooling costs by up to 40 percent;
- Materials selected for high recycled content and low pollutant emissions, including carpet with 53 percent recycled content and acoustical ceiling tiles with 82 percent recycled content; and
- 97 percent of construction waste—more than a quarter of a million tons—was diverted from landfill disposal.<sup>14</sup>

By incorporating these and many other sustainable building features, the Department of Education Building received a USGBC LEED™ Gold rating, making it the most sustainable building in state government history.<sup>15</sup>

### **USGBC and LEED™**

To date, the USGBC and its LEED™ program offers a clear, definable and flexible measurement tool to determine the quality of building design and operations. LEED™ is a nationally used building rating system designed to evaluate new and existing commercial, institutional and high-rise residential buildings. It offers four LEED™ certification categories each representing an increasing level of performance.

California's public, private and non-profit sectors have provided national leadership for the USGBC council, representing more than 20 percent of its members and more than 13 percent of the projects registered with the USGBC. Additionally, Long Beach, San Diego, San Francisco, San Jose, Santa Monica, the Los Angeles Community College District, the San Diego Community College District, San Mateo County, and the city and county of Los Angeles have all committed to use LEED™ for new construction projects.<sup>16</sup>

Nationally, the following entities have adopted LEED™ as the guideline for future construction: U.S. General Services Administration; U.S. Air Force; U.S. Army Corps of Engineers; Department of State; Department of Energy; Environmental Protection Agency (EPA); U.S. Navy; the states of Maryland, Massachusetts, New Jersey, New York, Oregon, and Pennsylvania and many local jurisdictions.



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## **Recommendations**

- A. The Governor should issue an Executive Order requiring every future state building to be built to the standards of the LEED™ Silver Rating or higher.
- B. The State and Consumer Services Agency, or its successor, should develop, by July 1, 2005, high-performance building design practices for the construction of state buildings (i.e. the state's "capital outlay program") focusing on life-cycle cost savings, resource efficiency, extending the useful life of facilities, and incorporating environmentally friendly practices. All state agencies involved in facility construction should be directed to implement these standards.
- C. The State and Consumer Services Agency, or its successor, should develop a series of economic and environmental measurement protocols to display the performance of the state's buildings by July 1, 2005.
- D. The State and Consumer Services Agency, or its successor, should issue an annual report, beginning July 1, 2005, detailing the activities resulting from this executive order, including, economic and environmental performance indicators.

## **Fiscal Impact**

The savings to the state from better design and operations could be substantial, as evidenced by the Cal-EPA headquarters and Department of Education headquarters examples. Exact numbers would depend on project budgets, design and operation but if operated at Cal-EPA headquarters standards the savings could be as much as \$1 per square foot less than code-built buildings. As stated in *The Costs and Financial Benefits of Green Building* report, payback for such design and operation will be many times the investment, potentially as much as ten times.

The state currently owns and manages over 200 million square feet of space and spends \$1.7 billion on design, construction and renovation a year. If, in a worst case scenario, high-performance designs increase building costs by 2 percent and the state only saves half this increase, by Fiscal Year 2009–2010 the state will enjoy net savings of \$17 million per year and these saving will continue to accrue cumulatively at a rate of an additional \$17 million per year.

Any potential additional costs resulting from better design would not be incurred until the third year of a project, so, if the recommendation is implemented, there would be no additional cost to the General Fund until FY 2006–2007. Savings from lower operation and maintenance costs for better-built and operated buildings will begin to be realized in FY 2007–2008 and each year following.





**General Fund**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	\$0	\$0	0
2005–06	\$0	\$0	\$0	0
2006–07	\$0	\$34,000	(\$34,000)	0
2007–08	\$17,000	\$34,000	(\$17,000)	0
2008–09	\$34,000	\$34,000	\$0	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

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- <sup>3</sup> California Department of General Services, Real Estate Services Division, *“2004/2005 Workload Analysis,”* (Sacramento, California, March 2004).
- <sup>4</sup> Commission on Building for the 21<sup>st</sup> Century, p. 20.
- <sup>5</sup> Interview with Theresa Parsley, assistant secretary, Cal-EPA, Sacramento, California (March 2004).
- <sup>6</sup> Public Policy Institute of California (PPIC), *“Making Room for the Future: Rebuilding California’s Infrastructure,”* by David Dowall and Jan Wittington (San Francisco, California, 2003), p. xii.
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<sup>15</sup> California Sustainable Building Task Force, *“Building Better Buildings: An Update on State Sustainable Building Initiatives,”* p. 33.

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# The State Needs to Restructure the Administration over the State Water Project

## **Summary**

The State Water Project, managed by the Department of Water Resources (DWR), is the largest state-owned, multi-purpose water project in the country. The project is critical to the resources and economy of the state, but there are impediments to its efficient operation as a major water and power utility. The state needs to take immediate actions to remove the impediments affecting the operations of the State Water Project, while maintaining environmental protections and standards, to ensure the continued reliability of the state's water delivery system.

## **Background**

The State Water Project (SWP) delivers water to 29 state water contractors providing water to more than 23 million Californians, irrigation for 750,000 acres of agricultural lands and environmental benefits to wildlife refuges and recreation facilities.<sup>1</sup> The infrastructure that the SWP uses to deliver the water includes 17 pumping plants, 8 hydroelectric power plants, 32 storage facilities and more than 693 miles of canals and pipelines spanning nearly the entire state, from Lake Oroville in Northern California to Pyramid, Castaic, Silverwood and Perris reservoirs in Southern California.<sup>2</sup> California's economy depends on SWP's cost-effective delivery of reliable, high quality water.

In 1960, California voters approved \$1.75 billion in bonds to finance the construction of the State Water Project. The State Water Contractors, comprising 29 local agency water suppliers, purchase water from DWR and are obligated to repay 100 percent of the costs incurred to finance and build the project, as well as pay for ongoing operating and maintenance costs of the system. No General Fund dollars support the project.<sup>3</sup>

SWP has been recognized many times over the years as one of the most outstanding and important engineering achievements and infrastructure works in the nation.<sup>4</sup> In 2001, the American Society of Civil Engineers selected SWP as one of the greatest engineering achievements of the 20<sup>th</sup> Century, and also selected it as the first project on United States soil to be named as a *Civil Engineering Monument of the Millennium*.<sup>5</sup>

## **Water and power operations**

SWP is a 24-hour, 7-day-a-week operation for the scheduling and delivery of water, the purchasing and trading of power to move the water, and the selling of power recovered

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through its hydroelectric plants. It is the only major water and power utility that is owned and operated by a state government. The only other state-owned water project of the same magnitude is the Central Arizona Project, which is operated separately from state government by the Central Arizona Water Conservation District, a public resource improvement district.<sup>6</sup> SWP is a highly specialized operation requiring a unique blend of talents and expertise in water delivery scheduling, power purchasing and trading, and the non-stop operations and maintenance of billions of dollars worth of dams, aqueducts, hydroelectric power and pumping plants. The project's roles and responsibilities are unique compared to other state agencies.

***State Water Project is a major user of power***

SWP is the largest single consumer of power in California. In 2001, SWP consumed 6.7 million megawatt hours of energy through long-term agreement purchases, short-term agreement purchases, and generation on the project itself. To minimize energy costs, pumping is generally scheduled "off-peak" when energy demand is lowest. However, despite generally pumping "off-peak," energy costs in 2001 totaled approximately \$570 million.<sup>7</sup>

***State Water Project is a major seller of energy***

SWP sold 2.2 million megawatt hours of energy to 20 utilities, 12 power marketers and the California Independent System Operator (CalISO) in 2001. SWP also received revenues for capacity, exchanges and transmission arrangements through CalISO. The total energy revenue in 2001 was approximately \$350 million.<sup>8</sup>

***Challenges to the State Water Project's efficient operation***

SWP is a complex water and power utility that is facing increasingly difficult challenges, including increasing water delivery demands, quality and endangered species issues and increased demands and use of the many pumping and generating units, which means less time for maintenance on a system that is several decades old.<sup>9</sup>

Hiring freezes have led to reductions in staff causing shortages of personnel in the field to operate and maintain critical facilities. This, in turn, has led to SWP's Southern Field Division needing more than 40,000 hours of overtime to keep the system operating at a high level. Special skills associated with purchasing power and scheduling power and water deliveries are in demand in the private sector, and state civil service classifications do not pay high enough salaries to attract individuals with highly specialized skills. Limitations and freezes on contracting impede the timely use of consultants to provide the needed skills for energy purchasing and scheduling to mitigate for SWP's inability to hire state employees. Also, SWP management and support organizations are housed within DWR, a department which has other major missions including public safety, local assistance, statewide planning for water resources and public education. Such a large mission and variety of funding sources often creates conflicts for both management and support organizations inside of the department.<sup>10</sup>



### **State Water Contractors Joint Powers Authority**

The State Water Contractors recently formed a Joint Powers Authority (JPA) that could provide a mechanism to maximize the reliability and efficiency of SWP by contracting with DWR to undertake specified projects and services. The purpose of JPA is to help resolve significant challenges in the near future, such as hiring freezes, budget constraints, and more complex power operations. Potential activities could include providing contractual services, operating and maintaining portions of the project facilities, and acquiring water and water rights.<sup>11</sup>

There are precedents for these types of arrangements. The Central Coast Water Agency designed and constructed two reaches and now operates and maintains much of the Coastal Aqueduct portion of SWP. The San Bernardino Valley Municipal Water District operates and performs some of the maintenance for the East Branch Extension portion of SWP. In addition, the federal Central Valley Project (CVP) has taken steps to partner more closely with their contractors, realizing tangible benefits. Over the past 10 years, CVP has reduced costs by allowing some units to be operated by water authorities, such as the Friant Water Users Authority, the San Luis & Delta-Mendota Water Authority, and the Tehama Colusa Canal Authority.<sup>12</sup> Potential candidates for limited reassignment of operation and maintenance would include turning over to the Metropolitan Water District of Southern California (MWD) the Santa Ana Valley pipeline, Perris Dam and Lake Perris because MWD is the only water contractor receiving water from this pipeline and lake.

### **Recommendations**

- A. The Governor should issue an Executive Order establishing the State Water Project (SWP) as a separate authority within the Resources Agency, or its successor, to better focus the administration of this critical water infrastructure.**
- B. The Resources Agency, or its successor, should work with the appropriate state entities to establish civil service classifications and salary levels to recruit and retain individuals with the special skills necessary to purchase, trade and sell power to be able to efficiently schedule water and power deliveries.**
- C. The Resources Agency, or its successor, should direct SWP to contract with the Joint Powers Authority formed by the State Water Contractors in cases where it is the best alternative to provide specialized services and skills for SWP.**
- D. The Resources Agency, or its successor, should direct SWP to continue turning over limited portions of the aqueduct system to the State Water Contractors to operate and maintain if it is in the best interests of the public and the environment.**

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### ***Fiscal Impact***

It is anticipated that establishing the State Water Project as a separate authority will enable it to gain operational efficiencies. DWR indicates that removing certain operational impediments would lead to at least a 1 to 5 percent increase in efficiencies associated with energy costs related to delivering water.<sup>13</sup> For example, using today's energy market conditions, the extension of an outage due to lack of resources or contract approvals for any of SWP's 42 pumping units in Southern California would cost more than \$85,000 per day per unit.<sup>14</sup> Beginning in Fiscal Year 2005–2006, savings to ratepayers are estimated to be approximately \$10–\$50 million annually based on 2001 energy costs.

It is assumed that the primarily administrative costs associated with the recommendations will either be absorbed or offset by efficiencies.

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### **Endnotes**

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- <sup>2</sup> Department of Water Resources, "Strategic Business Plan—Draft Document" (Sacramento, California, February 23, 2004), p. 7.
- <sup>3</sup> Department of Water Resources, "Management of the California State Water Project," Bulletin 132-02, p. xxxvi.
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- <sup>11</sup> State Water Project Contractors Authority, "Summary of Proposed Joint Powers Agreement for the State Water Project Contractors Authority," Draft Document, December 17, 2003; and Metropolitan Water District of Southern California, Board of Directors, Water, Planning, Quality and Resources Committee, "Authorize entering into an agreement for the State Water Project Joint Powers Authority," Board Action Paper, (Los Angeles, California, May 13, 2003).
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<sup>13</sup> Interview with Stephen Kashiwada, chief, Division of Operations and Maintenance, and former Deputy Director, Department of Water Resources, Sacramento, California (May 24, 2004).

<sup>14</sup> Interview Stephen Kashiwada, Chief, Division of Operations and Maintenance, and former Deputy Director, Department of Water Resources, Sacramento, California (May 21, 2004).







# CALFED Bay-Delta Program is Not Functioning Efficiently

## **Summary**

The CALFED Bay-Delta Program is behind schedule and lacks performance measures that provide real accountability and a long-term finance plan, which makes it more difficult to obtain federal funds to complete its work. A financial and performance audit of the program should be conducted that can be used as a basis for developing quantifiable performance measures and prioritized implementation actions with budgets tied to performance measures.

## **Background**

The CALFED Bay-Delta Program is a consortium of 24 state and federal agencies. The purpose of the CALFED Bay-Delta Program is to reduce water supply and environmental conflicts in the Bay-Delta water system that provides water to more than 22 million Californians and 7 million acres of farmland, as well as habitat for many threatened and endangered species. The program is charged with improving water supply reliability, water quality, levee system integrity and ecosystem health.

A 1994 Framework Agreement among state and federal agencies with management and regulatory responsibility in the Bay-Delta Estuary identified three categories of Bay-Delta management that needed improvement: water quality standards formulation; coordination of State Water Project and Central Valley Project operations with regulatory requirements; and long-term solutions to problems in the Bay-Delta System.

In December 1994, the agencies, working with agricultural, environmental and urban stakeholders, reached agreement on three categories of environmental issues, collectively known as the Bay-Delta Accord. The first category was water quality standards for the Delta that were put into regulation in the 1995 final Water Quality Control Plan for the Bay-Delta.

The second category of provisions reconciled operational flexibility of the State Water Project and the Central Valley Project and compliance with the federal Endangered Species Act (ESA) through real-time monitoring and operation.

The third category of provisions, referred to as “Category III,” were meant to improve conditions in the Bay-Delta Estuary that are not directly related to Delta water outflow including screening water diversions, waste discharge control, and habitat restoration. Parties to the agreement committed to implementation and financing of such measures, and estimated

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that a financial commitment of \$60 million would be required in each of the three years of the agreement (1995–1998).

From 1995 through August 2000, long-term solutions to the problems in the Bay-Delta were developed. A comprehensive program, implemented through a Record of Decision (ROD) and estimated to cost approximately \$30 billion, was finalized at that time. The program is now in its fourth year of implementation. The plan failed to include in its scope various factors crucial in determining the ability of the program to meet many of its objectives. For example, the CALFED Ecosystem Restoration Program does not take into account the ocean environment in its plan to restore salmon and steelhead populations. These fish spend two-thirds or more of their life in the ocean. Ocean temperature, food availability and commercial fishing are all significant factors that impact these fish populations and can limit the ability to achieve population recovery goals. Achieving these recovery goals is necessary to assure operation of the Delta water supply system under the Endangered Species Act.

The primary value of CALFED to date has been the much improved coordination of the state and federal water project operators and the fisheries agencies to reduce the killing of fish due to Delta water operations, including pumping. Only through the initiative of the state and federal water project operators and their contractors has a south Delta water conveyance improvement plan started to move forward to improve water supplies south of the Delta.

### ***Creation of the California Bay-Delta Authority***

Legislation (Chapter 812, Statutes of 2002, SB 1653, Costa), established a governance structure for CALFED. The most important element of this legislation was the creation of a new state entity within the Resources Agency—the California Bay-Delta Authority (CBDA)—to provide oversight, balance and coordination of implementation of CALFED Programs. The CBDA's many duties include the annual review and approval of long-term expenditure plans of the implementing agencies, and the preparation of a comprehensive program budget proposal. The Authority first met in July 2003.

Several interviews with stakeholders identified concerns with the Bay-Delta Authority's governance structure including the need for public members of the CBDA to actively participate in the decision-making process to provide the program with the guidance it needs.<sup>1</sup> Others expressed concerns that Bay-Delta Authority staff needs to better support members' participation.

Funded primarily by the state, the program cannot succeed in the long-term, without federal and additional financial participation from third parties such as water users, recreational interests, wildlife interests, and the general public. Federal reauthorization of the CALFED program with associated funding before the end of the year would demonstrate that the existing structure can work.

***Lack of performance measures, progress and long-term financing***

According to the Legislative Analyst's Office (LAO), since 2002 more than \$2.6 billion has been spent to implement the CALFED Program.<sup>2</sup> Many land and water assets have been acquired and hundreds of research, demonstration and education projects have been funded. While the program publishes annual reports and work plans detailing the program's actions and expenditures, it has not clearly documented progress based on performance measures other than dollars spent, amount of land or water acquired, and the number of projects funded. There has been a lack of commitment to complete and implement a program evaluation based on quantifiable performance measures.<sup>3</sup> Although the CALFED 2003 Annual Report commits to the "Continued development of appropriate performance measures that will evaluate how well specific program elements are meeting the objectives of the . . . Program." There has been no clear link made to species recovery and actions taken by the program. There has been no clear demonstration of the added value of the coordination function of several of the CALFED programs including the Drinking Water Quality Program.

While a long-term finance plan has not been put forward, a Draft Finance Options Report was published in May.<sup>4</sup> The report provides information on program costs and benefits, a range of finance options, and tools to assist future decision-making, but makes no specific recommendations. The Bay-Delta Authority is not required to prepare a long-term financing strategy. The LAO and many of those interviewed stated that a long-term strategy is a necessary and crucial function for the Bay-Delta Authority.<sup>5</sup> It is imperative that remaining bond funds be spent on high-priority actions based on a strategic plan and performance-based monitoring. The strategic use of remaining bond funds can attract additional federal and non-governmental matching funds. Expenditure of these funds can directly enhance local economies, and improve the long-term business climate of the state by improving water supply reliability and the environment.

Again, the LAO identified that program implementation is hindered by lack of financial support for the Levees Program and for the Drinking Water Quality Program. Improvements in these areas are needed to protect Delta islands and water quality when water pumping increases after modifications to Delta channels, or any other conveyance improvements are put in place.

The CALFED Program is often bogged down by a cumbersome process to select and contract for projects. While there is general support for the competitive grants process, it can result in long implementation delays of eighteen months or more. Once contracts are in place, projects are not adequately managed and performance is not well documented. One urban water contractor representative rated the Ecosystem Restoration Program as a "6 out of 10" based on the lack of documented results and the contracting delays.<sup>6</sup>

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According to the 2002 CALFED Annual Report, “Significant funding reductions have severely delayed all aspects of the Levee Program, including efforts to improve Delta levees to a base level of protection.” The report also states that for drinking water quality, “Lack of funding and contracting issues have affected implementation of projects. Delays in assessing options to reduce bromide and total organic carbon impacts could have implications for other areas of the CALFED Program.” Regarding the Water Use Efficiency Program (WUE), the report states that, “Contract delays have affected awarding of grants, and a lack of resources for defining performance measures and monitoring local water use efficiency projects is affecting CALFED’s ability to evaluate the overall effectiveness of WUE actions.”<sup>7</sup> The 2003 CALFED Annual Report states that, “contracting constraints have delayed preparation (of plans) and implementation aspects . . . for restoration activities.”<sup>8</sup>

Some reporting requirements have never been met, including mitigation monitoring. A requirement of the Record of Decision is that projects will be monitored to ensure that mitigation strategies are considered, adopted and implemented.<sup>9</sup> CALFED agencies are required to provide annual written reports and summaries on mitigation efforts. To date this requirement has not been met.

### ***Funding***

The implementation of the CALFED Bay-Delta Program relies primarily on general obligation bonds, non-state cost sharing made up of private water user funds, and some federal funds. Program implementation relies on some direct general fund support, \$10.9 million in FY 2004–2005, and potentially \$8.245 million in FY 2005–2006 through FY 2007–2008. General obligation bond funds from California Propositions 204, 13, 14, 40 and 50 specifically supporting CALFED implementation total about \$1.625 billion. There is another \$2.43 billion in CALFED-related funding.

Proposition 50 specified \$825 million for implementation of the CALFED program. Other CALFED-related Proposition 50 funds, including \$500 million for the Integrated Regional Water Management Program and \$200 million for water quality improvement programs, will be available for the next two to three years as shown in the chart below. Given the current fiscal condition of the state, it is uncertain whether new bond measures will be brought before the voters.



### Bond Funding Summary

PROPOSITION	DATE PASSED	TOTAL AMOUNT	AMOUNT AVAILABLE*
<b>204</b> Safe, Clean, Reliable Water Supply Act	November, 1996	\$995 million	\$74 million
<b>13</b> Safe Drinking Water, Clean Water, Watershed Protection, and Flood Protection Bond Act	March, 2000	\$1,970 million (\$250 million CALFED-specific; \$1,262 million CALFED-related)	At least \$323 million
<b>40</b> The California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Bond Act of 2002	March, 2002	\$2,600 million (\$600 million for habitat and water quality projects)	At least \$1,158 million
<b>50</b> Water Quality, Supply and Safe Drinking Water Projects. Coastal Wetlands Purchase and Protection Bond Act	November, 2002	\$3,440 million (\$825 million CALFED-specific; \$1,175 million CALFED-related)	At least \$2,280 million, of which an undetermined amount is CALFED- specific or CALFED- related

\* A Review of Bond Funds—Propositions 12, 13, 40 and 50—Status of Bond Projects and Expenditures as of June 30, 2003. Office of State Audits and Evaluations, Department of Finance, February 2004.

The following chart shows that while substantial funds have been obligated to date, an audit can identify cost savings through contract cancellations and identification of unused assets. By basing funding decisions on quantifiable performance measures, and prioritizing how funds should be spent, remaining funds can be better utilized.

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**CALFED Bay-Delta Program Funding Summary**  
(dollars in millions)

	<b>2000–2003 (First 3 FYs)</b>	<b>2003–2004</b>	<b>2004–2005 (Projected)</b>
General Fund	\$229	\$11	\$8–\$11
Bond Funds	\$871	\$475	\$333
Other State Funds	\$57	\$3	\$3
Federal Funds	\$166	\$41	\$31
Local Matching Funds	\$567	\$292	\$290
Total	\$1,890	\$822	\$665–\$668

Several state water contractors commented that prioritization and performance measurement are key to the future success of the CALFED program.<sup>10</sup> A representative from the Kern County Water Agency believes one basic question should be asked when CALFED is considering any action, “Does the action reduce conflicts in the Delta?”<sup>11</sup> In addition, Tim Quinn of the Metropolitan Water District of Southern California said that in his opinion, the bottom line for CALFED should be “Rather than just trying to get money out the door, it is important to get it right.”<sup>12</sup>

**Recommendations**

- A. An independent financial audit of the entire program should be conducted by a private auditor under contract with the California Bay-Delta Authority. Based on audit results, quantifiable performance measures should be developed and implemented for contract management, oversight and reporting.**

The audit should include a status review, reporting review, and performance review of each project funded in whole or in part with CALFED funds to meet CALFED Program goals. The audit should include a review of project solicitation and selection processes with recommendations for efficiency improvements and a review of the contracting process for consistency and efficiency.

- B. The Governor should direct the adaptive management—or technical performance—analysis be conducted under the direction of the CALFED Independent Science Board.**

This is a performance review of the program in its entirety after the first four years of implementation (seven years for the Ecosystem Restoration Program) that includes specific quantifiable performance measures. The review should be conducted in the context of the Record of Decision (ROD) and indicate potential changes to the program implementation to bring it into compliance with the ROD, or changes to the ROD, recognizing adaptive management results, for consideration.





**C. The California Bay-Delta Authority (CBDA) should have approval authority for all strategic plans, quantifiable performance measures, prioritized implementation actions and budgets.**

Based on the adaptive management analysis and updated strategic plans, implementation actions should be prioritized within each CALFED Program, and then on a program-wide basis. Each program should use specific quantifiable performance measures. Budgets should be tied to performance measures.

**D. A long-term financing plan should be completed by December 2005 by leadership of the CBDA.**

This is important to assure successful and balanced program implementation.

***Fiscal Impact***

Recommendation A requires an estimated one-time expenditure of \$300,000 to fund a financial audit by the Bureau of State Audits, or another independent entity. The audit would reveal the amount of obligated funds. Estimates indicate that an audit could possibly identify cost-savings of 5 percent of obligated funds through contract cancellations and identification and disposal of stranded assets. It is anticipated that the return on the audit expenditure may be at least tenfold or \$3 million.<sup>13</sup>

Process re-engineering for project selection and contract administration could save an estimated 15 percent of administrative costs, or \$400,000 per year.

**General Fund**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004-05	\$0	(\$150)	(\$150)	0
2005-06	\$200	\$0	\$200	0
2006-07	\$200	\$0	\$200	0
2007-08	\$200	\$0	\$200	0
2008-09	\$200	\$0	\$200	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003-04 expenditures, revenues and PYs.

**Other Funds**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	(\$150)	(\$150)	0
2005–06	\$200	\$0	\$200	0
2006–07	\$200	\$0	\$200	0
2007–08	\$200	\$0	\$200	0
2008–09	\$200	\$0	\$200	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> Interviews with Dennis O’Conner, staff consultant to Senate Agriculture and Water Committee, California State Senate, Sacramento, California (March 19, 2004); Steve Macaulay, executive director, California Urban Water Agencies, Sacramento, California (March 23, 2004); Lloyd Fryer, senior water resource planner, Kern County Water Agency, Bakersfield, California (March 18, 2004); Tim Quinn, vice president, State Water Project Resources, Metropolitan Water District of Southern California, Sacramento, California (March 22, 2004); and David Guy, executive director, Northern California Water Association, Sacramento, California (March 29, 2004).
- <sup>2</sup> Legislative Analyst’s Office: February 2004, *Analysis of the 2004–05 Budget Bill, CALFED Bay-Delta Program: At a Funding Crossroads*, “State Funds Have Contributed Most to CALFED,” p. 4, [http://www.lao.ca.gov/analysis\\_2004/Resources/res\\_02\\_cc\\_calfed\\_anl04.htm](http://www.lao.ca.gov/analysis_2004/Resources/res_02_cc_calfed_anl04.htm) (last visited June 18, 2004).
- <sup>3</sup> California Bay-Delta Authority, “2003 Annual Report” (Sacramento, California, December 2003), p. 52.
- <sup>4</sup> California Bay-Delta Authority, “Draft Finance Options Report” (Sacramento, California, May 10, 2004).
- <sup>5</sup> Legislative Analyst’s Office: February 2004, *Analysis of the 2004–05 Budget Bill, CALFED Bay-Delta Program: At a Funding Crossroads*, p. 1, [http://www.lao.ca.gov/analysis\\_2004/Resources/res\\_02\\_cc\\_calfed\\_anl04.htm](http://www.lao.ca.gov/analysis_2004/Resources/res_02_cc_calfed_anl04.htm) (last visited June 18, 2004).
- <sup>6</sup> Interview with Tim Quinn.
- <sup>7</sup> CALFED Bay-Delta Program Annual Report 2002, “Securing California’s Water Future” (Sacramento, California, December 2002), pp. 29–30.
- <sup>8</sup> California Bay-Delta Authority, “2003 Annual Report” (Sacramento, California, December 2003), p. 50.
- <sup>9</sup> CALFED Bay-Delta Program, “Programmatic Record of Decision” (Sacramento, California, August 28, 2000), pp. 30–31.
- <sup>10</sup> Interview with Lloyd Fryer, Steve Macaulay, and Tim Quinn.
- <sup>11</sup> Interview with Lloyd Fryer.
- <sup>12</sup> Interview with Tim Quinn.
- <sup>13</sup> Interview with Dan Ray, associate environmental scientist, Ecosystem Restoration Program, California Bay-Delta Authority, Sacramento, California (June 10, 2004).



# California Needs Strong Water Policy

## **Summary**

California needs strong water policy leadership to resolve conflicting policies among state agencies and boards, water agencies, environmental interests, and other public and private entities.

## **Background**

Water supply and infrastructure issues are critically important to environmental groups, farmers, and urban water purveyors. These groups' interests are highly divergent, which translates into entrenched positions on all sides with state agencies being caught in the middle. This problem leads to years of wasted effort and protracted litigation when state agencies plan for water supply and infrastructure improvements. California agencies are continually facing water policy issues. Examples of issues are discussed below.

## **California water plan**

California Water Code Section 10004 specifies that the California Water Plan (CWP) is the state's plan for the orderly and coordinated development of its water resources.<sup>1</sup> The CWP is uniformly criticized today as not meeting the needs of local and regional agencies.<sup>2</sup> There is no explicit linkage to the local general plan process or to master planning of the state's varied water districts.<sup>3</sup> The CWP is also not coordinated with the state's infrastructure planning for energy, housing, transportation or economic development.

Other western states have taken approaches to water planning that are different from California's approach. For instance, Texas has instituted non-mandatory regional planning.<sup>4</sup> Texas provides financial incentives to regional water planning agencies. The advantage of regional planning is that cities and counties can resolve their issues with the input of their local constituents and provide an interface with the state infrastructure planning programs. Regional planning also allows for local coordination with the local general plan process. Various efforts at regional water planning are in place in the San Francisco Bay region, Sacramento and elsewhere in northern and southern California. These efforts are not, however, coordinated with statewide planning efforts, such as the CWP.

## **State water project issues**

The State Water Project (SWP) continues to be a controversial water supply and infrastructure issue. When the SWP was planned in the 1950s and 1960s, it was envisioned that construction of reservoirs, canals and pipelines would occur in stages as California's population and economic growth created the demand for water supplies. The initial facilities were constructed,

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but as the population continued to grow, environmental, political, and economic factors prevented the SWP from being completely built.<sup>5</sup> For example, the Peripheral Canal referendum in 1982 blocked the state from building the Peripheral Canal element of the SWP that would have brought significant amounts of additional water to the Bay Area, San Joaquin Valley and southern California.<sup>6</sup> The referendum succeeded on both political and environmental grounds. Other facilities that were planned but never constructed for reasons are Los Banos Grandes reservoir and Los Vaqueros reservoir (although Los Vaqueros was successfully completed by a local water agency, Contra Costa Water District). Environmental and economic issues were of central concern in the failure of these projects by the state.

Because of these failures by the state to move forward on water supply and infrastructure issues, and the state's need to coordinate the operation of the SWP with the federal Central Valley Project, in 1994, the state and federal governments formed the CALFED program, a joint federal-state effort to solve a range of issues surrounding the San Francisco Bay Delta Estuary. The formation of the CALFED program led to a concerted effort to solve the state's water supply, environmental, levee and water quality issues that center around the San Francisco Bay-Delta system. CALFED was highly successful in achieving agreement on a plan for resolving these issues, and implementing those parts of the plan that help to restore the environment. For a variety of reasons, including political and environmental issues such as impacts to water quality in the South Delta, the program has not implemented those parts of the program that meet water supply objectives. Progress has stalled, and legislators have been attempting to create a solution.<sup>7</sup>

An example of the water supply element of the CALFED program is the South Delta Improvement Program (SDIP). In 1982, the South Delta Water Agency filed suit against the Department of Water Resources (DWR) and the U.S. Department of Interior, alleging that the operations of the state and federal water projects violated their water rights. An agreement between the parties was signed in 1986, but with the exception of the installation of temporary barriers, there has been no conclusion to a planning process that has spanned almost 20 years. The SDIP was included as an element of the CALFED program in 2000. As part of the latest planning effort, DWR will have expended \$27 million from Fiscal Year 2000–2001 through the end of FY 2003–2004 on the SDIP.<sup>8</sup> While CALFED has brought increased focus on this program, progress has recently stalled, again as a result of political and environmental issues.

### ***Agency policy conflicts***

Agency policy conflicts over water supply and infrastructure issues also arise among state agencies. A current policy controversy among state agencies is whether to allow private water companies to compete for state water bond funds. A May 2004 report from the Legislative Analyst's Office reviewed this issue and recommended to the Legislature that, despite the policy of individual state agencies, the Legislature should direct agencies to allow private companies to compete.<sup>9</sup> State agencies have yet to make a unified decision.



Another example of conflicting state agency policies is the current controversy the Coastal Commission brought on by discouraging ocean desalting plants that other state agencies are encouraging. Resources Secretary Mike Chrisman has urged the Coastal Commission to acknowledge a role for public and private development of desalination projects in meeting water supply needs. However, the Coastal Commission has questioned locating these projects in the coastal zone.<sup>10</sup>

### **Water Policy Council**

Former California Governor Pete Wilson instituted a Governor's Water Policy Council (Council), which functioned to bring together the Governor's office staff, agency secretaries, department directors and key board members that affect and implement water-related programs, to provide a forum for discussion and issue resolution.<sup>11</sup> The Council provided an opportunity for the Governor's office to provide the type of leadership called for in California Governor Arnold Schwarzenegger's Transition Team Recommendations—to "ensure that the various water demands in California—both now and in twenty years—are met" and for "clear direction on the respective roles for the state and local interests in meeting our water supply and water quality needs."<sup>12</sup> Water policy leaders in California are supportive of the Governor reinstituting the Water Policy Council as a forum for the Governor's office, the California Environmental Protection Agency, the Resources Agency and the Department of Health Services to set state water policy and address water infrastructure needs.<sup>13</sup>

The Council was discontinued after the formation of CALFED. However, the CALFED management team does not include a seat for the Governor's office representation and management team meetings are not attended by agency secretaries and department directors. It is also attended by federal representatives making it an inappropriate forum to discuss state policy.

### **Recommendations**

- A. The Governor should work with the Legislature to update the California Water Plan concept. The Legislature should consider legislation in FY 2004–2005 to update the concept of the Plan. This recommendation can be implemented within available funding.
- B. The Governor's Office of Planning and Research, and the Department of Water Resources, or successor entities, should integrate the California Water Plan into a state general plan process.
- C. The Governor should work with the Legislature to promote regional water planning.
- D. The Governor should reinstitute the Water Policy Council.

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## ***Fiscal Impact***

There are no General Fund implications from this proposal. Most water infrastructure projects are either funded through bond issuance or funded by users. However, these bond funds could be used much more effectively if the administration could make timely water infrastructure decisions. Updating the California Water Plan concept and incorporating it into a state general plan process would provide a strong framework for leaders to base their decisions.

More timely decisions and stronger leadership would reduce the typical recycling of major projects that occurs, potentially resulting in significant cost avoidance. For example, there have been several planning cycles for the South Delta Improvement Program, each lasting several years. Once a new cycle begins, most of the previous work, including environmental reports, negotiations with stakeholders, and basic planning must be performed again. If previous planning efforts had been successful, the \$27 million that has been expended since 2000 could have been avoided, resulting in savings of about \$6 million per year.

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## **Endnotes**

- <sup>1</sup> California Water Code Section 10004.
- <sup>2</sup> Interviews with Lloyd Freyer, Kern County Water Agency (March 19, 2004); Dennis O'Connor, consultant to Senator Machado, Sacramento, California (March 19, 2004); Steve Macaulay, executive director, California Urban Water Agencies, Sacramento, California (March 23, 2004); and David Guy, executive director, Northern California Water Agencies, Sacramento, California (March 29, 2004).
- <sup>3</sup> Interview with Kamyar Guivetchi, chief of Statewide Planning, Department of Water Resources, Sacramento, California (March 17, 2004).
- <sup>4</sup> Texas. Legislature. Senate. Senate Bill 1, 75<sup>th</sup> Session.
- <sup>5</sup> Department of Water Resources, "Management of the California State Water Project Bulletin 132-02" (Sacramento, California, January 2004), p. 9.
- <sup>6</sup> Department of Water Resources, "Time Line of Delta Events," [http://rubicon.water.ca.gov/delta\\_atlas.fdr/timeline.html](http://rubicon.water.ca.gov/delta_atlas.fdr/timeline.html) (last visited June 18, 2004).
- <sup>7</sup> California. Legislature. Senate. Senate Bill 1155, Legislative Session 2003–2004.
- <sup>8</sup> Interview with Paul Marshall, supervising engineer, Bay-Delta Program, Department of Water Resources, Sacramento, California (May 17, 2004).
- <sup>9</sup> Legislative Analyst's Office, "Proposition 50 Resources Bond: Funding Eligibility of Private Water Companies" (Sacramento, California, May 14, 2004).
- <sup>10</sup> Jake Henshaw, "Who will desalinate the water?" "Salinas Californian" (March 25, 2004).
- <sup>11</sup> Governor Pete Wilson, "California Water Policy," speech given in San Diego, California, 1992.
- <sup>12</sup> Governor Schwarzenegger's Transition Team, "Transition Team Recommendations to Governor Schwarzenegger—A Water Action Plan for the 21<sup>st</sup> Century" (Sacramento, California, November 2003).
- <sup>13</sup> Interviews with Kamyar Guivetchi; Greg Zlotnick, member, Santa Clara Valley Water District Board of Directors (March 18, 2004); and Lester Snow, director, Department of Water Resources, Sacramento, California (March 29, 2004).





# Reduce the State's Leasing Costs

## **Summary**

The state's requirements for leasing privately owned property are unnecessarily burdensome and costly. The state should reduce the amount it spends on leased property by removing overly restrictive lease requirements and streamlining its process for executing lease agreements.

## **Background**

The Department of General Services (DGS) is authorized to lease privately owned property for state use.<sup>1</sup> Under this authority, DGS administers about 2,000 leases covering 15 million square feet of office space, five million square feet of warehouse space and annual lease payments of \$390 million per year.<sup>2</sup> The Professional Services Branch of the Real Estate Services Division of DGS is charged with administering this program and performs the following functions:<sup>3</sup>

- Negotiates leases of real property for use by state agencies.
- Enforces compliance with lease terms and conditions.
- Establishes planning and design standards for state-leased offices, warehouses and other facilities.
- Maintains an inventory of state leases.

Most state agencies are required to use DGS leasing services. DGS may, however, delegate limited leasing authority to an agency, although the resulting lease must be submitted to DGS for approval.<sup>4</sup> Other agencies have authority to enter into lease agreements without receiving DGS approval for their transactions, including: the University of California, Administrative Office of the Courts, California State University, State Compensation Insurance Fund, District Fairs and Expositions (County Fairs), California State Fair, Public Employees Retirement System, and State Teachers Retirement System.<sup>5</sup>

## **Streamlining the process**

The state's leasing process begins when an agency submits a request for space to DGS, called a "space action request." DGS reviews the request to ensure it complies with DGS' regional plan for the area. The request also is reviewed to determine if it can be met using existing state-owned or state-leased facilities. If the request conforms to the regional plan for the area, cannot be met using existing facilities, and can best be fulfilled by leasing, it is forwarded to the DGS leasing section.<sup>6</sup>

The leasing section assigns the project to a space planner, a real estate officer and a representative from the agency requesting the space. Together, they prepare a "space program" detailing the amount and type of space required. The need for space is advertised on the Internet in DGS' state contracts register, generally for a two-week period. Property owners



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respond and locations are reviewed for suitability. Preliminary negotiations then begin on suitable locations to determine which represents the best value.

Next, preliminary interior space plans are prepared and approved by DGS and the State Fire Marshal. The Division of the State Architect delegates its American Disabilities Act (ADA) compliance approval authority to the lessor's architect. The approved space plans are then completed and the prospective lessor submits a bid for improvements necessary to accommodate the agency's specific space needs. Once construction costs are known and acceptable terms are negotiated, the lease is executed and the lessor prepares detailed construction documents.

The lessor is responsible for meeting all code requirements. The lessor is also required to obtain all necessary permits and a final certificate of occupancy from local permitting entities before the state accepts the space. The entire process generally takes between nine months and two years, depending on the project size and complexity.

There are many ways the state's process for leasing property could be improved. The following are a few of the specific areas where efficiencies and savings could be realized.

### ***Reducing the amount of space to be leased through increased telecommuting***

The first step in the process for obtaining leased property is to determine how much office space is needed. One proven method for reducing office space used extensively in the private sector is to increase the number of employees who work from home, called "telecommuting."

The AT&T estimated in 1995 that it has saved about \$500 million in office lease costs through telecommuting. Nortel Networks estimates it saves more than \$20 million a year in real estate costs with 13,000 telecommuters. Georgia Power reduced its office space needs by two-thirds through increased employee telecommuting.<sup>7</sup> According to the 2003 American Interactive Consumer Survey conducted by the Dieringer Research Group, the number of employed Americans who work from home during business hours at least one day per month is 23.5 million and has increased by nearly 40 percent since 2001.<sup>8</sup>

The state, however, has not used telecommuting significantly. The Department of Personnel Administration (DPA) reports that it does not maintain statistics on the number of state employees who telecommute, but they estimate that the number of telecommuting employees is minimal.<sup>9</sup> With increasing reliance on information technology, the opportunity exists for the state to increase the number of employees who telecommute and reduce the amount of office space needed.

### ***Renegotiating and reducing leases***

Another way the state could reduce its leasing costs is by renegotiating the terms of existing leases. Since November of 2001, DGS has actively reviewed all state lease agreements for



potential rent reductions. The reviews have resulted in 233 leases being amended or terminated, saving the state \$76.5 million.<sup>10</sup> While significant, these efforts have not been as successful as they could because DGS renegotiates lease terms only at the request and concurrence of the affected agency. There have been many instances where DGS has contacted agencies with opportunities to reduce lease costs, but the agencies have failed to follow through with a request to initiate action. It is ultimately the responsibility of each agency to review their leased space to determine what is not being used and to request action from DGS to renegotiate a lease or reduce space.<sup>11</sup>

### ***Redundant site inspections and plan check requirements***

Leased property often requires modifications to accommodate the tenant. If significant construction is necessary, the lessor may be required to obtain a building permit from the appropriate local agencies. The process for obtaining a building permit generally includes a review of construction plans and site visits by local agencies to ensure the property complies with local, state and federal laws, including fire regulations.<sup>12</sup> In state leasing projects, however, both the State Fire Marshal and local fire departments review construction plans and conduct site inspections to ensure compliance with the same fire regulations.<sup>13</sup>

Construction work in the private sector also is reviewed by local agencies for compliance with the federal ADA, which requires buildings to be accessible to persons with disabilities. When the state builds on state-owned property, however, it is not required to obtain permits from local agencies. Instead, the State Architect is charged with ensuring compliance with ADA.<sup>14</sup>

When leasing privately owned property, past practice has been for the state to require lessors to obtain all required permits and approvals from local permit-issuing entities. That practice continues, but in 2001 the State Architect began requiring an added level of oversight for all state leases by requiring that prospective lessors hire a specially certified plan checker to inspect and provide a written survey of any deficiencies in the building. Each survey costs about \$3,500 or more. This process is in addition to the reviews conducted by local agencies and is only required on state-lease projects. In practice, the ADA modifications required as a result of this state process are more extensive and the costs significantly higher than the modifications required by the local permitting entities. The state pays these increased costs in higher lease rates.<sup>15</sup>

A similar process is used to ensure state-leased property complies with seismic safety requirements. Unlike private sector tenants, when the state leases property it requires an additional level of seismic screening by a licensed structural engineer even though it is not required in statute and costs about \$3,500 or more for each project.<sup>16</sup>

These additional practices are unnecessary, redundant and result in additional costs and project delays.

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### ***Terms and limits on leases***

DGS is required to notify the Joint Legislative Budget Committee (JLBC) whenever it intends to enter a lease for five years or longer and an amount that exceeds \$10,000. The JLBC has 30 days from the date of notice to deny the request. Without any action within that time frame, it is deemed approved.<sup>17</sup> The effect of this requirement is that nearly every lease is negotiated with a maximum term of four years to avoid having to comply with the notification process; even when the projected need for space is long-term and a longer lease term would result in a lower rental rate.

### ***Green building requirements***

Lessors also must meet several sustainability “green building” requirements and criteria if they want to lease space to the state, pursuant to Executive Order D-16-00. For example, they must divert a certain amount of material removed from the premises from landfills by recycling or salvaging it. They also must use building materials meeting certain criteria based on its recycled content and environmental pollution emissions. These are just a few of the state’s rigid requirements.<sup>18</sup>

An alternative to rigid requirements would be to establish certain performance standards. For example, instead of requiring the lessor to use building materials meeting specified environmental pollution emissions, the state could establish air-quality standards for the building that could be met in ways other than through the use of prescribed building materials. Using performance standards instead of prescriptive requirements would give lessors flexibility while continuing to meet the state’s environmental objectives.

### ***High interest rate tenant improvement loans***

Private sector tenants can accept a cash allowance or rent credit and hire their own contractors to make necessary improvements to leased property. The state generally requires the lessor to make all necessary improvements as part of the lease because most state agencies do not have funds immediately available and, therefore, need the lessor to spread out the cost of improvements over the term of the lease.<sup>19</sup> The state has 196 separate leases requiring the state to pay a combined total of \$65 million for tenant improvements, at an average interest rate of about 10 to 12 percent. Using state bond proceeds, which have an average interest rate of 5 percent, to refinance these tenant improvements could save the state about \$9 million.<sup>20</sup>

California’s process for leasing privately owned property is overly cumbersome and time consuming, resulting in unnecessarily high leasing costs. The leasing market is dynamic and fast-moving, and the state loses many opportunities because it cannot timely complete the requirements necessary for executing a contract to lease privately owned property.



### **Recommendations**

- A. The Department of Personnel Administration, or its successor entity, should expand telecommuting opportunities for state employees.
- B. The Governor should work with the Legislature to authorize appropriate local permit-issuing agencies to review plans and construction sites for fire code compliance on state-leased property.
- C. The Governor should work with the Legislature to transfer responsibility for Americans with Disability Act compliance of state-leased facilities from the Division of the State Architect to the appropriate city or county entities responsible for code compliance and permitting.
- D. The Governor should work with the Legislature to allow the state to enter into leases for up to 10 years without having to notify the Joint Legislative Budget Committee when the property is needed long-term and the extended lease would be economical for the state.
- E. The Director of the Department of General Services (DGS), or its successor, should repeal DGS' policy requiring additional evaluation of state-leased facilities for seismic safety, above that which is required by law for private sector leased facilities.
- F. The Director of DGS, or his or her successor, should change DGS' sustainability or "green building" requirements for state-leased facilities from prescriptive to performance-based.
- G. The Director of the Department of General Services, or his or her successor, should use low-interest rate bond funds to refinance state leases in which the state has incurred debt for tenant improvements at high-interest rates.
- H. The Department of General Services, or its successor, should work with each agency to measure its lease costs per employee and to develop performance standards to lower these costs. DGS, or its successor, should work with each agency to develop strategies to meet these standards.

### **Fiscal Impact**

The recommendations above involve process improvements for which the savings are expected, but difficult to estimate. These process improvements will also result in savings in Personnel Years (PYs); however, the exact number and timing for savings depend on the actual implementation schedule of these recommendations, and therefore cannot be estimated (CBE) at this time.

There are two recommendations that can be quantified. One is the savings resulting from refinancing the \$65 million in tenant improvement loans from the current interest rates, ranging between 10–12 percent, with state bonds at a 5 percent interest rate. The expected savings by implementing this recommendation is \$9 million.

The effect of implementing performance measures designed to measure lease costs per employee and using the actual reductions in lease costs over a three-year period can also be estimated. On a net basis, the lease contract savings already achieved by DGS in Fiscal Years (FY) 2003–04, 2004–05, and 2005–06 have been 4 percent, 6 percent, and 4 percent, respectively.<sup>21</sup> By implementing performance measurements and setting a target for reduction of about 5 percent per year, annual savings of \$19.5 million can be expected. These estimates use actual FY 2003–2004 lease costs as the basis for measurement.

**General Fund**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$7,125	\$0	\$7,125	CBE
2005–06	\$14,250	\$0	\$14,250	CBE
2006–07	\$14,250	\$0	\$14,250	CBE
2007–08	\$14,250	\$0	\$14,250	CBE
2008–09	\$14,250	\$0	\$14,250	CBE

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

**Other Funds**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$7,125	\$0	\$7,125	CBE
2005–06	\$14,250	\$0	\$14,250	CBE
2006–07	\$14,250	\$0	\$14,250	CBE
2007–08	\$14,250	\$0	\$14,250	CBE
2008–09	\$14,250	\$0	\$14,250	CBE

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.



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## Endnotes

- <sup>1</sup> Gov. C. Section 14669.
- <sup>2</sup> Real Estate Services, DGS, "Statewide Property Inventory, Statewide," <http://www.resd.dgs.ca.gov/inventory/default.htm> (last visited June 18, 2004).
- <sup>3</sup> Department of General Services, "Real Estate and Leasing Management," <http://www.resd.dgs.ca.gov/PSB/realestate.htm> (last visited June 18, 2004).
- <sup>4</sup> Gov. C. Section 11005.3 (any state department, board, or commission may lease any real property for the use of the state agency for storage, warehouse, or office purposes provided that the lease term does not exceed three years and the annual rental does not exceed fifty thousand dollars (\$50,000); prior approval to engage in any lease activity shall first be obtained from the Department of General Services and the lease agreement shall be subject to approval by the department).
- <sup>5</sup> Gov. C. Section 11005.2.
- <sup>6</sup> E-mail from John Brooks, acting deputy director, Real Estate Services Division, Department of General Services, to California Performance Review (June 19, 2004).
- <sup>7</sup> Commercial Investment Real Estate News, "Telecommuting Cuts Lease Costs" (July/August 2003), p. 1 (newsletter).
- <sup>8</sup> International Telework Association & Council, "Home Based Telework by U.S. Employees Grows 40% since 2001," Baltimore, Maryland, September 4, 2003 (press release).
- <sup>9</sup> Interview with Robert Clifford, telecommute coordinator, Department of Personnel Administration, Sacramento, California (April 23, 2004).
- <sup>10</sup> Department of General Services, Real Estate Services Division, Professional Services Branch, Leasing Section, "Cost Savings Through Negotiation of Facility Space-Lease Contracts," Sacramento, California, June 17, 2004 (internal database); and interview with Doug Button, chief of Real Estate Leasing and Management Section, Professional Services Branch, Department of General Services, Sacramento, California (June 11, 2004). It is ultimately the responsibility of each agency to review their leased space to determine what is not being used and to request action from DGS to renegotiate a lease or reduce space.
- <sup>11</sup> Interview with Doug Button.
- <sup>12</sup> E-mail from John Brooks, acting deputy director, Real Estate Services Division, Department of General Services, to California Performance Review (June 19, 2004).
- <sup>13</sup> Health & S. C. Section 13108.
- <sup>14</sup> Memorandum from Stephan Castellanos, State Architect, California State Architect's Office, to Mike Courtney, deputy director, Department of General Services, Real Estate Services Division (July 27, 2001).
- <sup>15</sup> Interview with James Beck, staff planner, Design Services Section, Professional Services Branch, Real Estate Services Division, Department of General Services (June 18, 2004).
- <sup>16</sup> Interview with James Beck.
- <sup>17</sup> Gov. C. Section 13332.10.
- <sup>18</sup> California Department of General Services, Professional Services Branch, Real Estate Services Division, "Standard Lease Exhibit 'B' Outline Specifications," pp. 1–40.
- <sup>19</sup> Interview with Doug Button.
- <sup>20</sup> Interview with Doug Button.
- <sup>21</sup> Department of General Services, Real Estate Services Division, Professional Services Branch, Leasing Section, "Cost Savings Through Negotiation of Facility Space-Lease Contracts."







# Tapping Surplus Property Assets

## **Summary**

The state's laws and processes for identifying and selling underused and surplus state properties are ineffective. The state's laws should be amended and its processes streamlined to increase property sales and revenue to the state.

## **Background**

The state's real property holdings are substantial. According to the Statewide Property Inventory maintained by the Department of General Services (DGS), the state owns over 2,000 properties encompassing 2.5 million acres of land and 195 million square feet of buildings.<sup>1</sup>

## **State process for identifying surplus property**

Most state agencies are required by statute to annually review their real property holdings to determine what, if any, are surplus, underutilized, or in excess of foreseeable needs. This information is required to be reported to DGS.<sup>2</sup> There are a number of exceptions to this law, however, including land transferred to the state as a result of unpaid tax debts, land necessary to build or maintain highways, land administered by the State Lands Commission, land which has transferred to the state by operation of law or which has been distributed to the state by court decree in estates of deceased persons, and lands under the jurisdiction of the State Coastal Conservancy.<sup>3</sup> If any of the properties exempt from this law are no longer needed by the state, the properties are identified and sold under separate authority.<sup>4</sup>

Upon receiving a report from an agency that identifies surplus or underutilized property, DGS will notify all other state agencies to determine if there is an alternative state need for the property. If a state need exists, the property is transferred. If there is no state need, DGS compiles these properties into an annual report to the Legislature requesting authorization to sell it or otherwise dispose of it.<sup>5</sup> There is no oversight of each agency's use of its real property or its decisions to retain it. DGS is often mistakenly perceived as having authority over the state's real property. The department, however, actually controls very little of the state's property holdings. Seventy-seven departments other than DGS own facilities. For every structure owned by DGS there are 130 additional structures in the state's inventory and for every acre of land controlled by DGS there are an additional 7,200 acres of state-owned land.<sup>6</sup>

In a 1995 report mandated by the Legislature, DGS independently identified 123 surplus or underused properties controlled by 12 different agencies. The department, however, did not have authority to submit the identified properties to the Legislature for authorization to sell or dispose of them because the properties were not under its jurisdiction.<sup>7</sup> Only the individual agencies had the authority to submit the properties to the Legislature for authorization to sell or dispose of them. Although the 12 agencies have been required by statute to review their

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property holdings annually for underutilized and surplus properties since 1988, the 123 properties had not been identified as surplus or underused.<sup>8</sup>

Only a few of the 123 properties identified in DGS' 1995 report have subsequently been identified by the individual agencies in their annual surplus property reports and few properties overall have been sold. In 2000, three properties with a total estimated value of \$622,000 were identified in reports to DGS as surplus.<sup>9</sup> In 2001, four properties with an estimated value of \$20 million were identified.<sup>10</sup> In 2002, and again in 2003, there were no surplus properties identified.<sup>11</sup>

In a 2001 study by the California State Auditor, eight state agencies with large land holdings in 15 designated high-cost counties were questioned to determine whether they annually review their properties to determine if any were surplus or underutilized and if so, whether they had written policies for doing so. The State Lands Commission is exempt from the law requiring review of its holdings and said that it does not review its holdings to determine if any are surplus or underused. Two agencies, the Department of the Military and the Department of Water Resources, said that they do not review their property for potential surplus because they have little or no surplus property. The other five agencies said they perform annual reviews of their property, but none of these agencies had written procedures for evaluating potential surplus or underutilized properties and none could produce any detailed evidence of past reviews.<sup>12</sup>

### ***Examples of underutilized or surplus property***

Following is an example highlighting the inadequacies inherent in the state's process for identifying underused state property. Orange County is now California's second most populous county. With three million inhabitants, it is also one of California's most urban counties. The county's growth has created a shortage of affordable housing. According to the California Association of Realtors March 2004 Housing Affordability Index, only 14 percent of Orange County households can afford to purchase a median-priced home. San Francisco is the only one of California's 58 counties that is worse, at 12 percent.<sup>13</sup>

The state owns 190 acres in the City of Costa Mesa, located in Orange County. The land is used to hold the annual Orange County Fair, a summertime agricultural fair. Preliminary discussions with local brokers and appraisers active in the Orange County area indicate that its highest and best use would be for housing. They estimate the property would be worth \$27–\$30/per square foot, or about \$230 million, if it were properly zoned, approved for development, and clear of all hazardous materials and existing improvements.<sup>14</sup> If the land were developed to accommodate four to six single family detached homes per acre, it would allow about 1,000 homes to be built. Higher densities of more than four to six housing units per acre along with other development including retail, apartments and office space, for example, are possible with the cooperation of local government in the zoning and development process.<sup>15</sup>



The Department of Food and Agriculture, which is responsible for this property, has never identified the property as being unused or underused.<sup>16</sup> From the perspective of the Department of Food and Agriculture, the property is being fully used to deliver a state program. It is not underused or surplus. A property's value is rarely considered by state agencies when evaluating a property for consideration as surplus or underused. Only the current and planned future usage of the property is considered.<sup>17</sup>

Another example of the state's underutilization of state-owned property is the state's property in downtown San Diego, where the state owns two full city blocks. On one block is a six story, 174,000 square foot, state office building built in 1962. On the other block is a single story parking garage, a vacant 11,000 square foot building and about 150 surface parking spaces. The state plans to remove all of the existing structures, build a new 315,000 square foot building on one site and a surface parking lot on the other.<sup>18</sup>

Although the state plans to construct only 315,000 square feet, the current zoning on these parcels, however, would allow about 1 million square feet of building area.<sup>19</sup> Development density is an important issue for the City of San Diego. The city's community plan update, which is currently in process, projects the number of downtown residents will quadruple from 18,000 to 75,000 and the current downtown employment population will more than double from 75,000 to 175,000, along with substantial increases in civic and cultural activities.<sup>20</sup> In 2002, San Diego Mayor, Dick Murphy, wrote to then Governor Davis expressing his concerns that the state's plans are not effectively utilizing the property. The City of San Diego encourages maximum density development downtown and the Mayor asked the Governor to ensure that the project achieve the same minimum density requirements of a private developer.<sup>21</sup> The state, however, has not changed its development plans for its downtown properties.<sup>22</sup>

### ***State's process for selling and giving away its property is lengthy***

Once a state property is identified as surplus, it takes years to sell it. For the 26 properties sold by DGS in the last 10 years it took from one to 18 years to dispose of the property, with just over half taking seven years or more. On average, property sold by DGS remains on the surplus list for 6.7 years before it is sold.<sup>23</sup> One important factor contributing to the lengthy sales process is the requirement that local governments and nonprofit corporations receive first right of refusal to purchase state surplus property.<sup>24</sup>

One example of the delays resulting from the first right of refusal provision in law is the sale of the surplus Richmond Employment Development Department (EDD) office. In 1997, EDD identified the property as surplus. That same year the City of Richmond expressed interest in acquiring the property. The Legislature declared the property surplus in 1998. While exercising its first right of refusal and effectively stopping the state from marketing the property to another buyer, the City began lobbying its congressional representative and state-elected

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officials to purchase the property at no cost. Three years later in 2001, legislation was passed transferring the property to the City for free. The City is now in the process of obtaining funds to redevelop the property and expects to sell it in the summer of 2004.<sup>25</sup>

Transferring surplus state property for free requires specific legislation, but selling surplus property for less than fair market value is permitted and often occurs. State law allows state property to be sold to local governments and nonprofit entities for less than fair market value if the property is to be used for housing, open space, parks or educational purposes.<sup>26</sup> During Fiscal Year 2001–2002, the most recent year for which sales data are available, three of six properties were, pursuant to legislative authorization, sold for less than fair market value, resulting in about \$1.6 million in lost revenue.<sup>27</sup>

The California Department of Transportation (Caltrans) administers a surplus property sales program separate from that of DGS for properties acquired with State Highway Trust Funds that are no longer needed for transportation purposes.<sup>28</sup> Caltrans' surplus properties are required to be offered to other public agencies prior to public sale.<sup>29</sup> Caltrans' surplus property sales program recently sold residential properties located in the cities of Pasadena, South Pasadena and Los Angeles. The property was designated to be sold for low and moderate income housing, as required by Government Code Section 54235. Adequate low and moderate income housing is an important goal for the state, but the cost of meeting that goal through Caltrans' surplus property sales program is high.

For example, as required by law, Caltrans recently sold 11 surplus properties in Pasadena and South Pasadena to low and moderate income tenants for less than market value. The combined market value of these properties was about \$3 million. The properties were sold for a combined total of about \$900,000. Each property, therefore, was sold for about \$191,000 less than its market value. There are an additional 455 properties still owned by the state in areas that were originally acquired for the 710 freeway project. The project has been delayed indefinitely due to environmental concerns. If the project is officially cancelled, the remaining 455 properties will be sold subject to Government Code Section 54235. In a 2004 legislative proposal, Caltrans estimated that if these properties are sold without a change in law, the state will sell the property for about \$143 million below market value.<sup>30</sup>

### ***Promising practices***

Despite these restrictions, the state has had some success selling its high-value surplus urban property. In 1998, the National Association of Directors of Administration and General Services awarded DGS Asset Enhancement Program an award of distinction for the innovative sale of three key pieces of the state's surplus real property. These sales created 16,000 new jobs, generated more than \$1 billion in new construction and returned more than 360 acres of valuable land to the tax rolls. The properties have also provided affordable housing, a new subsidized day care center, new facilities at an existing state development center, additional



transportation infrastructure, historic preservation, numerous public amenities, and wildlife habitat, while still creating remarkable financial returns to the state's taxpayers.<sup>31</sup>

The DGS Asset Enhancement Program demonstrates DGS has the necessary expertise to work effectively with land use consultants and state agencies to determine optimal use of large urban property. It also demonstrates DGS' ability to identify possible surplus property by assisting agencies in consolidating or relocating state operations located on high-valued property.

The DGS Asset Enhancement Program uses an asset enhancement model to evaluate a variety of factors prior to a property being deemed surplus. For example, the model is used to determine a property's highest and best use and its infrastructure capacity. It includes components that take into consideration basic environmental assessments and conceptual land planning in addition to site-specific issues such as historic resources, demolition, traffic and potential restrictions on the land's use. The model also calls for interviewing local officials, addressing community and neighborhood concerns and foreseeable environmental issues.<sup>32</sup>

Inadequate funding and the state's cumbersome and lengthy process for contracting, however, limit the success of DGS' Asset Enhancement Program. The asset enhancement models used by the program are intended to identify state-owned property that could be sold and put to better use. This often requires funding and contracting with consultants prior to a property being identified as surplus. Unfortunately, the state's process for funding projects to sell state property typically begins only after a site has been designated as surplus and the funding must be requested as long as 18 months in advance—at a time when the total amount needed often cannot be accurately estimated.<sup>33</sup>

The effectiveness of DGS' Asset Enhancement Program also is limited by the state contracting process. It is typical for a state contract to take a year or longer to process. This does not adequately meet the needs of the program because the scope of analysis necessary for determining the best use of a property can and does frequently change. For example, toxic materials discovered on a site will expand the scope of environmental analysis required. Conversely, some projects may be cancelled based on changes in market conditions or strong local opposition.

In other instances, the analysis of a property may be completed, but development or selling of the property may be delayed due to lack of funding, market conditions, local opposition, or other factors. If the obstacles are overcome and the project is to continue, the state's contract with its consultants for the project will likely have expired. Due to state contracting requirements, the state must start over again with its process to contract with consultants. This can result in the state contracting with a different consultant, rather than using the consultant who completed the initial analysis of the property. This slows down projects and precludes the



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state from leveraging the prior consultant's existing knowledge and project-specific expertise, resulting in increased costs to the state.<sup>34</sup>

### ***Recommendations***

The following recommendations are consistent with Governor Schwarzenegger's May 11, 2004, Executive Order (S-10-04) directing improvement of the state's real estate asset and property management. Implementation of these recommendations will result in more surplus properties being identified and sold, a faster cycle time from identification to sale, higher sales proceeds for the state, and a more streamlined process.

- A. The Governor should work with the Legislature to empower the State and Consumer Services Agency, or its successor, to declare state assets surplus and direct their sale.
- B. The Governor should work with the Legislature to amend state law to require the sale of state property at fair market value.
- C. The Governor should work with the Legislature to amend state law to eliminate the right of first refusal for surplus property to any non-state agency.
- D. The State and Consumer Services Agency, or its successor, should be appropriated continuous funding to evaluate and sell surplus property.
- E. The State and Consumer Services Agency, or its successor, should be permitted to enter master service contracts for consulting services required to study and sell surplus property.

### ***Fiscal Impact***

The state owns over 2.5 million acres of land and 195 million square feet of buildings.<sup>35</sup> Previous reviews of the state's holdings have identified numerous potentially surplus and underutilized properties that have not yet been sold. The combined value of these surplus and underutilized properties is estimated to be in the high hundreds of millions of dollars.

The May revision to the FY 2004–2005 budget includes \$50 million in increased revenue from surplus property sales and \$2.8 million in funding from the Property Acquisition Law account to pay for added staff and consulting costs to achieve these sales.<sup>36</sup> Depending on which properties are eventually selected for sale, and restrictions in statute on the use of the proceeds resulting from disposal, the proceeds will be applied to either General Fund or special fund revenue. In the initial years of the implementation of these recommendations, the assumption is that efforts will be made to target properties that will have a direct impact on the General Fund.

Staff and consulting costs have historically averaged about 5 percent of surplus sales proceeds. Therefore, based on an annual funding level of about \$2.5 million, an estimated \$50 million in annual property sales could be generated. Assuming that the recommendations contained in



this paper are implemented, doubling the funding for staff and consulting costs to \$5 million annually could result in \$100 million in annual property sales.

Immediate sales are expected, but because of the complexity of most of these sales transactions, it is anticipated that greater sales proceeds will be achieved in years three through five. Most of the state's underutilized and surplus properties are now used to deliver state programs. Unless these state programs are discontinued, relocation will be necessary. In the few instances where relocation is unnecessary and there is little increased property value to be gained by securing development entitlements prior to disposal, the sales could be completed in one to two years. In other more complex sales requiring both program relocation and the state to secure the development entitlements, sales could take three to five years.

**General Fund**  
(dollars in thousands)

Fiscal Year	Sales Proceeds	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$50,000	\$2,800	\$47,200	4
2005–06	\$50,000	\$2,800	\$47,200	4
2006–07	\$100,000	\$5,000	\$95,000	4
2007–08	\$100,000	\$5,000	\$95,000	4
2008–09	\$100,000	\$5,000	\$95,000	4

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> Department of General Services, "Statewide Property Inventory," <http://www.documents.dgs.ca.gov/RESID/Inventory/StateOwned.xls> (last visited June 21, 2004).
- <sup>2</sup> California Government Code Sections 11011–11011.20.
- <sup>3</sup> California Government Code Sections 11011–11011.20.
- <sup>4</sup> Interview with Dwight Weathers, chief of Real Estate Services Section, Professional Services Branch, Department of General Services, Sacramento, California (June 18, 2004).
- <sup>5</sup> California Government Code Sections 11011–11011.20, 14667.1, and 14673.
- <sup>6</sup> Commission on California State Government Organization and Economy, "California Real Property Management, A Cornerstone for Structural Reform" (Sacramento, California, December 1995), p. 15.
- <sup>7</sup> State and Consumer Services Agency and Department of General Services, "State and Consumer Services Agency, Department of General Services, Office of Real Estate and Design Services, Report to the Legislature: State Surplus Property Inventory" (Sacramento, California, January 1995), Exhibit D, pp. 1–3, and Exhibit E, pp. 1–2.



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- <sup>8</sup> California State Auditor, "The State's Real Property Assets: The State Has Identified Surplus Real Property, but Some of Its Property Management Processes are Ineffective" (Sacramento, California, January 2001), p. 3.
- <sup>9</sup> Department of General Services, "Annual Report to the State Legislature, Surplus Proprietary Lands 2000" (Sacramento, California, August 25, 2000), p. 1.
- <sup>10</sup> Department of General Services, "Annual Report to the State Legislature, Surplus Proprietary Lands 2001" (Sacramento, California, January 1, 2001), p. 1.
- <sup>11</sup> Department of General Services, "Annual Report to the State Legislature, Surplus Proprietary Lands 2002" (Sacramento, California, January 1, 2002), p. 1; and Department of General Services, "Annual Report to the State Legislature, Surplus Proprietary Lands 2003" (Sacramento, California, October 30, 2003), p. 1.
- <sup>12</sup> California State Auditor, "The State's Real Property Assets: The State has Identified Surplus Real Property but Some of Its Property Management Processes are Ineffective," pp. 35–37.
- <sup>13</sup> California Association of Realtors, "California's Housing Affordability Index falls seven points in March; minimum household income needed to purchase median-priced home just under \$100,000" (May 6, 2004), <http://www.car.org/index.php?id=MzM1NjE=> (last visited May 25, 2004).
- <sup>14</sup> Interview with Bill Bacon, first vice president, CB Richard Ellis, Sacramento, California (June 17, 2004).
- <sup>15</sup> Interview with John Brooks, acting deputy director, Real Estate Services Division, Department of General Services, Sacramento, California (June 18, 2004).
- <sup>16</sup> Interview with Dwight Weathers, chief of Real Estate Services Section, Professional Services Branch, Department of General Services, Sacramento, California (June 18, 2004).
- <sup>17</sup> Interview with Dwight Weathers.
- <sup>18</sup> California Government Code Section 14669.16.
- <sup>19</sup> San Diego Municipal Code for the Centre City Planned District, Section 103.1925. This code section describes Land Use A = Commercial/Office District (allows Residential too), Existing Floor Area Ratios (FAR) = 8, the Eastern most block has a potential increase to FAR 10, if 80% Residential, the potential FAR for both blocks may be increased to 18 under the Community Plan Update currently being considered (June 18, 2004).
- <sup>20</sup> Centre City Design Corporation, "San Diego Downtown Community Plan Update" (October 2003), [http://www.ccdc.com/planupdate/pdf/preliminary\\_draft\\_pp.pdf](http://www.ccdc.com/planupdate/pdf/preliminary_draft_pp.pdf) (last visited May 25, 2004), p. 12.
- <sup>21</sup> Letter from Dick Murphy, mayor, City of San Diego, to California Governor, Gray Davis, September 16, 2002.
- <sup>22</sup> California Government Code Section 14669.16.
- <sup>23</sup> California State Auditor, "The State's Real Property Assets: The State Has Identified Surplus Real Property, but Some of Its Property Management Processes are Ineffective," p. 21.
- <sup>24</sup> California State Auditor "The State's Real Property Assets: The State Has Identified Surplus Real Property but Some of Its Property Management Processes are Ineffective," p. 22.
- <sup>25</sup> Interview with Dwight Weathers (March 25, 2004).
- <sup>26</sup> California Government Code Sections 11011–11011.20 and 54235–54238.7.
- <sup>27</sup> Department of General Services, "Annual Report to the State Legislature, Surplus Proprietary Lands 2003," pp. 5–6.
- <sup>28</sup> California Government Code Section 54222; and Streets and H. C. Section 118.6.
- <sup>29</sup> California Government Code Section 54222; and Streets and H. C. Section 118.6.
- <sup>30</sup> California Department of Transportation, "2004 Legislative Proposal for Affordable Housing for Low and Moderate Income Tenants," (Sacramento, California, July 16, 2003); and interview with Barry Cowan, chief, Caltrans Office of Real Property Services Division of Right of Way and Land Surveys, Sacramento, California (May 25, 2004).



- <sup>31</sup> Department of General Services, "California's Asset Enhancement Approach to Land Sales" by John H. Brooks, chief, Asset Planning and Enhancement Branch, Department of General Services, J. Frank Davidson, assistant chief, Asset Planning and Enhancement Branch, Department of General Services, Paula P. Gutierrez, asset manager, Asset Planning and Enhancement Branch, Department of General Services, Claude Gruen, principal economist, Gruen Gruen + Associates, San Francisco, California, Nina Gruen, principal sociologist, Gruen Gruen + Associates, San Francisco, California, Dan Potash, attorney, DVP Associates, Oakland, California (Sacramento, California), p. 1.
- <sup>32</sup> Department of General Services, "California's Asset Enhancement Approach to Land Sales," by John H. Brooks, chief, Asset Planning and Enhancement Branch, Department of General Services, J. Frank Davidson, assistant chief, Asset Planning and Enhancement Branch, Department of General Services, Paula P. Gutierrez, asset manager, Asset Planning and Enhancement Branch, Department of General Services, Claude Gruen, principal economist, Gruen Gruen + Associates, San Francisco, California, Nina Gruen, principal sociologist, Gruen Gruen + Associates, San Francisco, California, Dan Potash, attorney, DVP Associates, Oakland, California, p. 1.
- <sup>33</sup> Interview with John Brooks.
- <sup>34</sup> Interview with Paula Gutierrez, supervising real estate officer, Asset Planning and Enhancement Branch, Real Estate Services Division, Department of General Services, Sacramento, California (June 21, 2004); and California Government Code Sections 19130–19134.
- <sup>35</sup> Department of General Services, "Statewide Property Inventory," <http://www.documents.dgs.ca.gov/RES/Inventory/StateOwned.xls> (last visited June 21, 2004).
- <sup>36</sup> Department of Finance, "Governor's Budget May Revision 2004–05" (Sacramento, California, May 2004), pp. 88–89.





**EXECUTIVE ORDER S-10-04**

**by the**

**Governor of the State of California**

**WHEREAS**, on behalf of all Californians, the State of California owns and leases real property assets used for diverse public purposes, including, but not limited to, university campuses, highways, parks, correctional facilities, flood control levies, water storage and conveyance facilities, mental health hospitals, developmental centers, veterans homes, state fairs, fire stations, forensic laboratories, and office buildings; and

**WHEREAS**, a partial listing of these assets includes:

- 33 university campuses encompassing 6,300 buildings and 69 million square feet of structural space;
- 50,000 lane-miles of highways and 12,000 bridges;
- 33 adult prisons, nine institutions for youthful offenders, and four correctional hospitals;
- 11 forensic laboratories and one DNA laboratory;
- Two public health laboratories;
- 238 forest fire stations and 28 air attack and helitack bases;
- 277 park units covering nearly 1.5 million acres, and 228 wildlife reserves encompassing approximately one million acres;
- 210 Department of Motor Vehicle and 139 Highway Patrol offices;
- 32 million square feet of leased and owned office space managed by the Department of General Services, and millions more square feet managed by other state entities;





- Four mental health hospitals with more than four million square feet of facilities and five developmental centers with approximately five million square feet of space; and

**WHEREAS**, these real property assets are the infrastructure necessary to carry out the services, activities, and programs that California provides to its citizens and visitors, and those programmatic needs drive California's investment in and management of real property assets; and

**WHEREAS**, California's inventory of real property assets is collectively valued in the hundreds of billions of dollars, and includes priceless parcels of California's breathtaking natural resources, which must be protected for this and all future generations; and

**WHEREAS**, California state government is entrusted with managing the entirety of this asset inventory in a way that maximizes the public benefits without unnecessary expense; and

**WHEREAS**, this responsibility for management and efficient stewardship includes ensuring proper utilization and maintenance of the assets, acting judiciously to increase the holdings in the inventory as necessary to meet increased needs for services to the public, and acting prudently to decrease the inventory when assets are surplus to the needs of serving the public; and

**WHEREAS**, California's real property asset management structure is spread across more than 40 boards, conservancies, commissions, and departments that acquire, trade, develop, and dispose of real property assets for various state programs; and

**WHEREAS**, California's decision-making process regarding the utilization of real property assets lacks statewide coordination, with nearly a hundred board members and department directors who govern the decisions regarding what property is added to and deleted from California's asset inventory; and

**WHEREAS**, there is no one set of laws, policies, or processes that comprehensively governs and coordinates the activities affecting California's asset inventory; and

**WHEREAS**, all properties purchased with funds derived from, or secured by, any tax or fee revenue are owned by the State of California, and are to be managed to benefit the citizens of California with the entities that have jurisdiction over these assets acting as stewards of the state's property for the people of California; and

**WHEREAS**, this disjointed system of real property asset management is deficient because it:

- Hinders statewide strategic planning;







- Inhibits the use of a consistent approach to determine whether the acquisition of a real property asset has a clearly identifiable public purpose and benefit;
- Inhibits the use of a consistent approach to determine whether the utilization of a real property asset meets statewide programmatic needs;
- Inhibits efforts to set coordinated statewide priorities for spending on real property assets;
- Leads to inconsistent and inequitable operational costs paid from departmental budgets for the use of real property assets;
- Allows some decisions to escape proper due diligence reviews and thereby increases the risk that the state will acquire low priority properties or properties with undiscovered costs and liabilities;
- Leads to inconsistent state policies in dealing with the public and other governments in real estate transactions;
- Contributes to an inefficient use of resources to manage, maintain, and govern California's real property assets;
- Has prevented the creation of a single system for accurately listing and tracking all of California's assets.

**NOW, THEREFORE, I, ARNOLD SCHWARZENEGGER**, Governor of the State of California, by virtue of the power and authority vested in me by the Constitution and statutes of the State of California, do hereby issue this order to become effective immediately:

1. The California Performance Review, in coordination with the State and Consumer Services Agency and the Department of General Services shall review all existing statutory and regulatory authorities and current laws and processes that govern the acquisition, use, management, and disposal of state real property assets. They shall make recommendations to the Governor regarding necessary reforms to improve the management of the state's portfolio of real assets.
2. All state agencies, departments, boards, and commissions under the authority of the Governor shall review all real property assets which are currently under their jurisdiction, as well as real property leased by the state. As part of this review, all state entities shall provide complete reporting of their property inventory in compliance with guidelines to be issued by the Department of General Services. The Department of General Services shall record these inventories in the Statewide Property Inventory.





3. All state agencies, departments, boards, and commissions shall review the current and anticipated programmatic need for the state-owned and leased property that they occupy or have under their stewardship, identify and report any property surplus to their current or future needs, and ensure that information is developed that completely and adequately describes and justifies existing and future programmatic needs for real property assets, including, but not limited to the information developed in compliance with the requirements of the California Infrastructure Planning Act (Government Code sections 13100-13104).
4. Concurrent to this review of laws and policies, the California Performance Review shall identify potentially high value urban properties owned by the State of California, which may be underutilized or which may not reflect a highest and best use, and which may warrant realignment or disposal. The California Performance Review shall prepare a report and recommendation to the Governor by June 30th 2004.
5. All state entities under the Governor's executive authority shall cooperate fully with the State and Consumer Services Agency, Department of General Services and the California Performance Review and identify departmental resources currently performing activities related to asset management and provide assistance and personnel as needed to implement this Executive Order. Agency secretaries and other cabinet-level positions will be responsible for ensuring compliance with the provisions of this Executive Order. For those departments that do not have cabinet-level representation, department directors or executive officers shall be responsible for ensuring compliance with the provisions of this Executive Order.
6. Other entities of state government not under the Governor's direct executive authority, including constitutional officers, the legislative and judicial branches, and the University of California, California State University, and California Community Colleges are requested to actively participate in this effort.
7. The California Performance Review, in coordination with the State and Consumer Services Agency, Department of General Services and the Department of Finance are hereby directed to coordinate the implementation of this Executive Order and may issue management memos, as necessary.

**IN WITNESS WHEREOF** I have here unto set my hand and caused the Great Seal of the State of California to be affixed this the eleventh day of May 2004.

/s/

**Arnold Schwarzenegger**

**Governor of California**





# Improve Efficiency of Extra Enforcement Program in Highway Work Zones with Fewer Resources

## Summary

The California Department of Transportation (Caltrans) uses the California Highway Patrol to provide extra enforcement services in highway construction and maintenance work zones, primarily for speed enforcement. There may be a more efficient or cost-effective way to perform this function, whether it is conducted by patrol units or through automated enforcement.

## Background

Caltrans maintains an extra enforcement program to improve the safety of motorists and workers in state highway construction and maintenance work zones. Caltrans and CHP jointly operate this program, comprised of two parts, the Construction Zone Enforcement Enhancement Program (COZEPP) and the Maintenance Zone Enforcement Enhancement Program (MAZEPP). CHP uses circulating and stationary patrol vehicles to monitor speeds and issue citations, to apply traffic control measures, and to enforce truck inspection.<sup>1</sup> Extra enforcement is considered beneficial when traffic congestion is expected or when unique conditions, such as visibility problems, full freeway closures, and high accident locations, warrant additional public motorist or worker protection.

This program was originally established as a security measure for workers in construction zones in Southern California during night-time operations. As that need diminished, functions were later expanded to include traffic control and speed surveillance and reduction. Off-duty officers participate in these extra enforcement activities and are paid overtime. Costs for the last three fiscal years are shown in the chart below:

**Overtime Costs for Off-Duty Officers Participating in Extra Enforcement**  
(dollars in thousands)

Fiscal Year	Costs COZEPP	Costs MAZEPP	Total
2000–01	\$8,000	\$950	\$8,950
2001–02	\$10,400	\$4,200	\$14,600
2002–03	\$6,600	\$4,000	\$10,600

Mileage costs covered under this contract were about \$700,000 during fiscal 2002–2003.<sup>2</sup>

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### ***Drawbacks of current process***

The three-year maximum contract amount for extra enforcement is \$51.2 million, or about \$17 million per year. About \$12 million (or \$4 million per year) of the \$51 million is designated for MAZEPP and included in Caltrans' maintenance budget. The remaining \$39 million (or \$13 million per year) is designated for COZEPP services. Off-duty officers and sergeants are paid the overtime hourly rate of approximately \$45, versus the regular rate of \$30, to provide these services. This contract is scheduled to expire in July 2005.<sup>3</sup>

On occasion, Caltrans staff has requested CHP units to provide extra enforcement services during times that off-duty officers were assigned for special activities such as homeland security. As a result, those officers could not be scheduled to provide services to Caltrans. The current contract contains a provision that "the CHP will be the exclusive provider of these services, regardless of the law enforcement jurisdiction at the project site."<sup>4</sup>

Documentation of the enforcement activities in a work zone requires coordination between the officers and field staff for preparing, reviewing and approving invoices. CHP officers document the date and time, vehicle mileage and description of the work performed. The signature of the Resident Engineer is required for payment. Communication between CHP and Caltrans field staff is sometimes difficult, particularly during night-time activities. Delays in billing result in data tracking problems and late payment.<sup>5</sup>

With budget reductions and diminishing ranks due to retirement and officers being called for military duty, California does not have adequate CHP officers to cover all regular- and off-duty activities.<sup>6</sup> A study by the South Dakota Department of Transportation found that the presence of a highway patrol car can reduce traffic speeds in work zones, but if officers do not issue citations, the effect is reduced and only temporary.<sup>7</sup>

### ***Enforcement alternatives***

A national survey of all state transportation agencies shows that most states use off-duty officers on an overtime basis, while a few states allow only on-duty officers. A few states assign officers to these duties as regular duty. Several states use a combination of local and state enforcement officers. South Dakota has employed retired officers for extra enforcement duty.<sup>8</sup>

In California, local law enforcement officers have been used for enforcement purposes on adjacent roadways or at adjacent intersections. Local law enforcement representatives in Sacramento indicate that they will not compete with CHP to provide enforcement on the state highway system, even though they can issue citations on state highways.<sup>9</sup>

Rather than paying for off-duty officers on an overtime basis, it may be more cost-effective to transfer the entire extra enforcement function permanently to CHP. It would be less expensive to pay the officers at the regular rather than overtime rates. Also, the public would receive



more service time for less money because officers could work on other duties when not scheduled for extra enforcement.

At the overtime rate, CHP typically assigns one sergeant (at \$68.46 per hour) for every three officers (at \$56.31 per hour each), including overhead (12.2 percent) and benefits (11.4 percent). If extra enforcement duties and funding were transferred to CHP and paid at the regular rate of \$30 per hour, the amount saved from overtime hourly costs plus overhead and benefits would be about \$5.6 million of the total \$17 million per year. Based on about \$11.4 million per year, less annual mileage cost of \$700,000, CHP would have adequate funding to hire 71 new officers, seven new sergeants and purchase 28 additional patrol vehicles. With CHP responsible for this function, officers and equipment would be available when needed.

### ***Automated enforcement tools***

Various states are focusing on using automated enforcement devices, such as photo radar, to help reduce the need for officer presence. When radar detects a speeding vehicle, a camera takes a photograph of the driver and license plate. A citation is then mailed to the registered owner of the vehicle.<sup>10</sup>

The Virginia Department of Transportation conducted research on the use of radar devices for enforcement and message signs that advised the motorist when the safe speed was exceeded. Virginia found that the automated enforcement devices worked best when they are mixed in periodically with actual state police presence, so that motorists would know that tickets might be issued for violations.<sup>11</sup>

Illinois is proposing new legislation to use radar-activated cameras that would photograph license plates of cars exceeding the safe speed limit in a work zone. To allow troopers to covertly enforce speed limits, out-of-uniform troopers equipped with radar technology will sit in Illinois Department of Transportation trucks to monitor motorists.<sup>12</sup>

In 2003, New York initiated “Operation Hard Hat.” State troopers are deployed inconspicuously in the work zone with a radar or laser to spot motorists exceeding the speed limit; they then notify another officer past the work area who issues citations. The troopers in the work zone may be on foot, in a construction vehicle, or in areas not obvious to motorists.<sup>13</sup> The Oregon cities of Portland and Beaverton conducted a study to evaluate photo radar’s public acceptance and its effectiveness. Their study found that radar gives officers a safe, accurate way to enforce speed laws and increases the number of citations an individual officer can issue. Their public opinion surveys showed that people supported the use of radar for speed enforcement.<sup>14</sup>

In California, CHP has not used plainclothes officers for traffic enforcement because of concerns that motorists may perceive that they are being tricked or trapped. For that reason,



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CHP officers remain in marked patrol vehicles.<sup>15</sup> Radar has been used in California since 1998; all CHP vehicles are equipped for the use of radar devices. To use radar or other electronic devices in California, an engineering and traffic survey to determine the appropriate speed limit must have been conducted within five years prior to the date of the alleged violation.<sup>16</sup> State law requirements for an engineering and traffic speed survey should not apply to use radar in work zones if adequate warning signs are displayed to alert motorists of the speed limit. In a work zone, the allowable speed may vary, depending on the type of work being conducted.

### ***Recommendations***

- A. Prior to July 2005, the California Department of Transportation (Caltrans), or its successor, should develop a three-year, performance-based contract with the California Highway Patrol (CHP), or its successor, for extra enforcement services. The contract provisions include:
  - Requirements that at the beginning of each fiscal year, Caltrans should provide CHP with a list of scheduled projects and anticipated maintenance activities for the upcoming year, along with an estimate of the anticipated need for extra enforcement;
  - A definition of the specific duties and conditions of service as agreed upon by both parties;
  - Agreement on funding;
  - Documentation and reporting responsibilities be maintained similar to that being done under the existing contract; and
  - A provision that specifies that if CHP is not available, CHP will arrange for extra enforcement by local agencies.
- B. Each fiscal year, after the required funding is determined according to the contract provisions, the funding should be transferred from the State Highway Account to CHP and designated for the purpose of the Construction Zone Enforcement Enhancement Program and Maintenance Zone Enforcement Enhancement Program services. CHP should use all funds to hire additional officers designated to provide extra enforcement in Caltrans construction and maintenance work zones.
- C. The Governor should work with the Legislature to amend California Vehicle Code Section 40802 to stipulate that an engineering and traffic survey is not required to use radar devices in a work zone if warning signs are displayed.

### ***Fiscal Impact***

About one-third of the salary costs for extra enforcement would be saved by hiring new California Highway Patrol officers rather than paying officers at the overtime rates. At the current contract of \$17 million per year, a one-third savings equates to \$5.6 million per year.



After the one-third reduction, a balance of \$11.4 million would be available to fund the costs of enforcement in Caltrans construction and maintenance work zones. Deducting estimated annual mileage costs of about \$700,000 per year from the remainder of \$11.4 million, leaves a balance of \$10.7 million for hiring new CHP officers. The regular annual salary for a new officer is estimated at \$114,000 (including overhead and benefits, uniforms, and weapons). For every 10 officers, CHP typically hires a sergeant at \$167,000; for every 2.5 officers, CHP typically purchases a vehicle at \$50,000.<sup>17</sup> Therefore every ten officers, plus one sergeant and four vehicles, would cost \$1.51 million. Consequently, with the revised contract amount of \$11.4 million, less annual mileage cost of \$700,000, CHP could hire 71 new officers, seven new sergeants and purchase 28 additional patrol vehicles.

### State Highway Account (dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	0	\$0	0
2005–06	\$5,600	0	\$5,600	78
2006–07	\$5,600	0	\$5,600	78
2007–08	\$5,600	0	\$5,600	78
2008–09	\$5,600	0	\$5,600	78

Note: The dollars and PYs for each year in the above chart reflect the total change for the year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> *Interagency Agreement between the Department of Transportation, Division of Procurement and Contracts, and the California Highway Patrol, Interagency Agreement number 56A0082, California Highway Patrol Agreement number 2R052001 (Sacramento, California, effective on July 1, 2002, expires on June 30, 2005), pp. 2, 9, and 10.*
- <sup>2</sup> *Information provided by Bo Nishimura, California Department of Transportation, Executive Office, sent to California Performance Review, April 10, 2004.*
- <sup>3</sup> *Interagency Agreement between the Department of Transportation, Division of Procurement and the California Highway Patrol.*
- <sup>4</sup> *Interagency Agreement between the Department of Transportation, Division of Procurement and Contracts, and the California Highway Patrol.*
- <sup>5</sup> *Interview with Ken Middleton, safety and construction zone enforcement enhancement program administrator, Sacramento County, Department of County Engineering (April 6, 2004).*
- <sup>6</sup> *Denny Boyles, "Ranks of CHP Officers Thinning," "Fresno Bee" (April 19, 2004).*

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- <sup>7</sup> State of South Dakota, Office of Research, "Applications of Automated Speed Enforcement Equipment," [http://www.state.sd.us/Applications/HR19ResearchProjects/oneproject\\_search.asp?projectnbr=SD2001-06](http://www.state.sd.us/Applications/HR19ResearchProjects/oneproject_search.asp?projectnbr=SD2001-06) (last visited June 18, 2004).
- <sup>8</sup> Center for Transportation Research and Education, Iowa State University, "Effectiveness of Extra Enforcement in Construction and Maintenance Work Zones" (May 2003), p. 14, <http://www.ctre.iastate.edu/reports/WZ4E.pdf> (last visited June 18, 2004).
- <sup>9</sup> Interview with Bob Stevens, lieutenant, Sacramento County Sheriff's Department, Sacramento, California (April 13, 2004); and interview with Ken Middleton, safety and construction zone enforcement enhancement program administrator, Sacramento County, Department of County Engineering (April 6, 2004).
- <sup>10</sup> State of South Dakota, Office of Research, "Applications of Automated Speed Enforcement Equipment," [http://www.state.sd.us/Applications/HR19ResearchProjects/oneproject\\_search.asp?projectnbr=SD2001-06](http://www.state.sd.us/Applications/HR19ResearchProjects/oneproject_search.asp?projectnbr=SD2001-06) (last visited June 18, 2004).
- <sup>11</sup> E-mail from David Rush, state work zone safety coordinator, Virginia Department of Transportation, to California Performance Review (April 13, 2004).
- <sup>12</sup> Illinois Government News Network, "Gov. Blagojevich announces plan to better protect drivers and workers in highway work zones," March 30, 2004, <http://www.illinois.gov/PRessReleases/PressReleasesListShow.cfm?RecNum=2881> (last visited June 18, 2004).
- <sup>13</sup> New York Department of Transportation, "Operation Hard Hat," <http://www.dot.state.ny.us/traffic/ohh/index.html> (last visited June 18, 2004).
- <sup>14</sup> Portland Police Bureau, "Photo Radar Demonstration Project Evaluation Executive Summary," <http://www.portlandonline.com/police/index.cfm?c=cjiha&a=dcdii> (last visited June 18, 2004).
- <sup>15</sup> Interview with John Olejnik, California Highway Patrol/ Caltrans coordinator, California Highway Patrol (April 16, 2004), Sacramento, California; and e-mail from John Olejnik, California Highway Patrol/ Caltrans coordinator, California Highway Patrol, to California Performance Review (April 16, 2004).
- <sup>16</sup> California Veh. C. Section 40802, <http://www.dmv.ca.gov/pubs/octop/vc/tocd17c3a1.htm> (last visited June 18, 2004).
- <sup>17</sup> E-mail from Chuck Gunter, associate budget analyst, California Highway Patrol, Administrative Services Division, Budget Section, to California Performance Review (June 14, 2004).



# The State Owns Several Routes that it Should Relinquish to Local Agencies

## **Summary**

The state owns, maintains and operates about 50,000 lane-miles of highway. Of the total, about 6,500 lane-miles should be relinquished to local agencies, saving the state the ongoing costs of maintaining these facilities.

## **Background**

The State Highway System is defined in the California Streets and Highways Code, Section 300:

*It is the intent of the Legislature, in enacting this article, that the routes of the state highway system serve the state's heavily traveled rural and urban corridors, that they connect the communities and regions of the state, and that they serve the state's economy by connecting centers of commerce, industry, agriculture, mineral wealth, and recreation.*

The Legislature also has specified the composition of the state highways in statute. The California Department of Transportation (Caltrans) is the organization responsible for maintaining and operating the state highways. The present system evolved over several decades. Prior to the Collier-Burns Act of 1947, state highways began and ended at city limits.<sup>1</sup> One result of the Act was that the state assumed responsibility for a number of local streets that provided route continuity. When bypass facilities were later constructed in urban areas, the surface streets were returned, in most cases, to the local governments.

## **Route relinquishment**

California Streets and Highways Code, Section 73, allows the California Transportation Commission to relinquish state highways. Caltrans is the state agency that performs the work needed to relinquish a state highway in coordination with the local agencies. Reasons for relinquishment can include the following:

- Deletion of a state highway by legislative enactment;
- Superseding the existing state highway by relocation; and
- Agreement with a local agency to accept facilities that are constructed by a state highway project, but are not part of the main highway.

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Most legislation to relinquish a route is the result of a local agency wanting to gain control of a state highway that passes through its community. This local preference usually stems from the limitations of the Caltrans encroachment permit process and resulting controversies over sidewalks, landscaping, lane widths, parking, design standards, and other criteria that Caltrans uses to operate the state highways.<sup>2</sup>

When superseding routes are constructed, relinquishment of the original route should occur as part of the project.<sup>3</sup> Some of the original routes have been retained by the state because agreement on relinquishment could not be reached at that time with the local agency. These local agencies are reluctant to accept the roads into their system because of the costs of ownership, regardless of the additional flexibility provided to them.<sup>4</sup> When no agreement is reached, the state continues to maintain ownership and pay all related costs of these routes.

### ***Caltrans study***

In 1995, a Caltrans study concluded that 3,262 centerline-miles of existing state highways should be owned, operated and maintained by local agencies.<sup>5</sup> While Caltrans' study was sound, the resulting proposal was not successful and left the state as the owner of these routes.<sup>6</sup>

Currently, Caltrans believes that the 1995 study to relinquish those routes is appropriate. An April 2003 memorandum on "Relinquishment of State Highways" from Caltrans' Chief Engineer referenced the 1995 study for facilities that should be relinquished.<sup>7</sup> Caltrans is currently developing a revised relinquishment process, and a local appeal process, to help facilitate relinquishments. To date, very few of the identified routes have been relinquished.<sup>8</sup>

The three primary reasons that all of the routes identified in the 1995 study have not been relinquished are local priorities, fiscal issues and policy conflicts. Caltrans has tried to encourage local transportation partners to agree to relinquishment by performing extra work on, or providing funds for, certain routes. While this is done in the interest of good partnership, these actions are not legally required and cumulatively have a large impact on the transportation funds available for other projects.<sup>9</sup>

### ***Recommendations***

- A. The Governor should direct the Business, Transportation and Housing Agency, or its successor, to develop a statewide list of routes for relinquishment using the 1995 study and its criteria as a starting point.**
- B. The Business, Transportation and Housing Agency, or its successor, should provide a long-term reduced staffing and operating expense plan for Caltrans' various divisions that perform duties involving, but not limited to, highway maintenance, legal, encroachment permits and administration.**



- C. The California Transportation Commission (CTC), or its successor, should hold a series of public meetings to receive comment on the proposed relinquishments. The CTC should produce a final list of routes to be relinquished.**
- D. The final list of route relinquishments should be recommended to the Governor for inclusion in the Budget. The relinquishment package should follow a process similar to the Base Realignment and Closure, which is an all or nothing proposal, without the ability to add or remove any routes or portions of routes.<sup>10</sup> It is recommended that the routes be relinquished consistent with existing law, without providing funds to local agencies for future maintenance costs, tort liability, or other factors impacting the operation of the route.**

### ***Fiscal Impact***

Savings to the State Highway Account of approximately \$108 million annually are expected because of the decreased inventory of state highways. Savings will come from reduced maintenance and tort costs. There is no General Fund impact.

California has approximately 50,000 total lane-miles of state highway. Of this total approximately 6,500 lane-miles are proposed to be relinquished.

The Caltrans highway maintenance budget for FY 2003–2004 includes 5,452 personnel years (PYs) and a budget of \$765 million.<sup>11</sup>

The Caltrans annual legal costs related to tort claims such as automobile accidents on state-owned highways includes 167 PYs and a budget of \$70 million.<sup>12</sup>

Total annual savings of \$108 million are from the estimated cost of highway maintenance per mile. Savings would begin once the routes are relinquished in FY 2005–2006.

**Transportation Funds**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$108,000	\$0	\$108,000	(730)
2006–07	\$108,000	\$0	\$108,000	(730)
2007–08	\$108,000	\$0	\$108,000	(730)
2008–09	\$108,000	\$0	\$108,000	(730)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.



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## Endnotes

- <sup>1</sup> California Department of Transportation, Transportation System Information Program, "Proposed Criteria and Principles for Designating a Two-Tiered State Highway System" (Sacramento, California, November 15, 1995), p. 1; and California Highways, "Chronology of California Highways," <http://www.cahighways.org/chrphas4.html> (last visited June 14, 2004).
- <sup>2</sup> California Department of Transportation, Transportation System Information Program, "Proposed Criteria and Principles for Designating a Two-Tiered State Highway System," p. 1; and E-mail from Pat Weston, office chief, Office of Advanced System Planning, Division of Planning, California Department of Transportation, to Sharon Sherzinger, California Performance Review (March 4, 2004).
- <sup>3</sup> California, Str. & H.C., Section 73; and California Department of Transportation, "Right of Way Manual" (Sacramento, California), p. 6.12-1, <http://www.dot.ca.gov/hq/row/rowman/manual/chap06/Sec6-12.pdf#xml=http://www.dot.ca.gov/cgi-bin/texis/webinator/search/xml.txt?query=relinquishment&db=db&pr=default&prox=page&rorder=500&rprox=500&rdfreq=500&rwfreq=500&rlead=500&sufs=0&order=r&uq=%25www.dot.ca.gov/hq/row/rowman/manual%25&cq=&id=4040100f14> (last visited June 14, 2004); and California Department of Transportation, "Project Development Procedures Manual, Chapter 25—Relinquishments" [http://www.dot.ca.gov/hq/oppd/pdpm/chap\\_hm/chapt25/chapt25.htm#c25](http://www.dot.ca.gov/hq/oppd/pdpm/chap_hm/chapt25/chapt25.htm#c25) (last visited June 14, 2004).
- <sup>4</sup> Interview with Mary Beth Herritt, office chief, Office of State Project Development Procedures and Quality Improvement, Division of Design, California Department of Transportation, Sacramento, California (April 13, 2004); and interview with Shirley Choate, deputy district 2 director, Program/Project Management, California Department of Transportation, Redding, California (May 7, 2004).
- <sup>5</sup> California Department of Transportation, Transportation System Information Program, "Proposed Criteria and Principles for Designating a Two-Tiered State Highway System," p. 11; and California Department of Transportation, Transportation System Information Program, "California State Highways Proposed Primary and Secondary System" (Sacramento, California, November 28, 1995), p. 37; Memorandum from Martha J. Tate Glass, program manager, Transportation System Information Program, California Department of Transportation, to Caltrans district directors, Redesignation of the State Highway System (November 13, 1995); and Memorandum from R.P. Weaver, chief engineer, California Department of Transportation, to all district directors, Reduction of Inventory of State Highways which are Inconsistent with Legislative Intent (November 28, 1995).
- <sup>6</sup> E-mail from Pat Weston to Sharon Sherzinger, California Performance Review; and interview with John Van Berkel, California Department of Transportation, Sacramento, California (April 14, 2004).
- <sup>7</sup> Memorandum from Brent Felker, chief engineer, California Department of Transportation, to Caltrans' deputy directors, district directors, and division chiefs, Relinquishment of State Highways (April 9, 2003).
- <sup>8</sup> Interview with Mary Beth Herritt, office chief, Office of State Project Development Procedures and Quality Improvement, Division of Design, California Department of Transportation, Sacramento, California (April 13, 2004).
- <sup>9</sup> Interview with Mary Beth Herritt; interview with John Van Berkel, California Department of Transportation, Sacramento, California (April 14, 2004); interview with Kazan Attaran, chief economist, Transportation Planning, California Department of Transportation, Sacramento, California (April 14, 2004); and interview with Shirley Choate, deputy district 2 director, Program/Project Management, California Department of Transportation, Redding, California (May 7, 2004).





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- <sup>10</sup> United States Department of Defense, Office of the Secretary of Defense, "Base Realignment and Closure," <http://www.defenselink.mil/brac/02faqs.htm#06> (last visited June 15, 2004).
- <sup>11</sup> California Legislative Analyst's Office, "Pavement Maintenance: Protecting the State's Investment" (Sacramento, California, February 18, 2004), p. A-53, [http://www.lao.ca.gov/analysis\\_2004/transportation/transportation\\_anl04.pdf#page=52](http://www.lao.ca.gov/analysis_2004/transportation/transportation_anl04.pdf#page=52) (last visited June 14, 2004).
- <sup>12</sup> E-mail from Marty Cromwell, business manager, Legal Division, California Department of Transportation, to Terry Murphy, California Performance Review (April 28, 2004).





# Reduce Telecommunications Costs by Modifying Cost Monitoring and Auditing Processes

## **Summary**

California state agencies may be paying for unused telecommunications services and extra costs due to errors in communication billings. The state's system of tracking and auditing telecommunications costs does not allow for timely or detailed review and should be revised.

## **Background**

The Department of General Services Telecommunications Division (DGS-TD) contracted with SBC Communications and MCI Inc. on behalf of the state to provide telecommunications services to about 2,000 state, county, local and non-profit, tax-supported agencies in California. In a competitive bid, this seven-year master telecommunications contract, with the possibility of three one-year extensions, was awarded in December 1998.<sup>1</sup> Services provided under this contract, referred to as the California Integrated Information Network (CALNET) Master Service Agreement (MSA), include local and long distance, toll-free calling card, simple business line, consolidated local, voice mail, data, building wiring, consulting and other services.<sup>2</sup>

The DGS-TD has released a Request for Information to solicit comments and suggestions from current and potential CALNET customers and vendors on how to improve the provisions of the current CALNET Agreement, which will expire in December 2005. The feedback received will be incorporated into the Request for Proposals scheduled to be released in December 2004 as a part of the CALNET II replacement contract process. The DGS-TD has also formed a Customer Advisory Group of state and local users of CALNET to review and respond to the feedback.<sup>3</sup>

Under the current CALNET contract, the California Department of Transportation (Caltrans) has been using an interactive voice response system for its highway public information program. This application provides callers with specific information, or accepts an order based on specific input made by the caller after being prompted by the system. For example, a user can place a call to 1-800-COMMUTE and navigate through the system by selecting the desired language, location, state highway, etc.

In January 2004, a Caltrans manager reviewed the telecommunications bill for this service. After extensive evaluation of Caltrans' and MCI's records, the manager found a double-billing

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error in excess of \$220,000 that occurred over a six-month period, caused by MCI including the subtotal twice. Identification of this error was difficult because the billing showed only a single-line entry for the service, instead of a detailed breakdown similar to the ones in residential telephone bills. MCI told Caltrans that the same type of error may also have occurred at other state agencies that have been using a similar voice response system.<sup>4</sup>

The results of this internal review prompted Caltrans staff to conduct an audit of telecommunications lines used by the traffic operations/permits group at the headquarters office. The audit reviewed the phone lines of 400 headquarters employees. As a result of the audit, 27 percent (20 of 73) cellular phone lines were eliminated, saving about \$1,000 per month; and 39 percent (122 of 316) land lines were eliminated, saving about \$2,000 per month.

Each state department is responsible for managing its own budget and pursuing cost savings. Due to workforce reductions, internal telecommunications cost audits may not have been conducted on a regular basis. The DGS-TD does not track information for each agency, but has provided guidance and information on best practices to the agencies. In February 2003, DGS-TD issued Bulletin 03-02 to all agency telecommunications representatives, directing them to conduct internal audits of their cellular telephone usage and calling plans. State agencies that have not conducted recent audits of telecommunications equipment and services may be experiencing billing problems similar to those noted above.<sup>5</sup> The DGS-TD does not know how many agencies to date have complied with Bulletin 03-02.<sup>6</sup>

Private sector recovery audit firms are often hired by a company or an agency under a pay-for-performance or performance-based contract. There are no costs to the state and all associated fees are a pre-negotiated share of actual recovered funds.<sup>7</sup> Under a performance-based contract, the agency defines its objectives and lets the contractor decide how best to meet them. Together the agency and the contractor choose performance measures to gauge the effectiveness of a solution.

The DGS contracted with two private sector firms to conduct recovery audits on telecommunications costs in California. One of them, John Richards Associates, Inc. audited a payphone contract (separate from CALNET) from 1997–1999, and found about \$7 million in commissions owed to the state. The audit firm was paid 30 percent of this sum as its contingency fee. Another firm, Telecommunications Services Limited, conducted an audit of the 911 network. This firm recovered about \$1.6 million and was paid a contingency fee of 39 percent of that sum. The DGS-TD is in the process of preparing a master agreement to pre-qualify recovery audit firms that all agencies can use on a contingency basis. The DGS-TD proposes that the audit be done on a departmental basis.<sup>8</sup>

As suggested in the Reasons Foundation's *Citizens' Budget, 2003–05*, the state could select one or more private recovery audit firms to analyze invoices, contracts, reimbursements, and other relevant records. The firm would then document and recover any overpayments. The recovery



firm's services would be paid through a contingency fee based on a percentage of recovered overpayments.<sup>9</sup> Firms are often paid about 20 percent. For example, according to one audit recovery firm, CashFlow Guardian, Inc., these firms almost always charge based on contingency, about 25 percent of the dollars recovered. The average payables error rate for U.S. companies is about 0.1 to 0.4 percent.<sup>10</sup> The *Citizens' Budget*, however, suggests that the state pay no more than 10 percent of the savings recovered. In the area of contracts and grants, error rates for government agencies may be as high as 0.4 to 1.8 percent.<sup>11</sup>

Several recovery audit firms note that telecommunications cost error rates may be higher than in other industries. Telesoft Corporation claims that their customer base recovered nine percent refunded against every dollar spent on telecommunications billings.<sup>12</sup> Morgan Doyle Limited Co. reports telecommunications industry error rates averaging between five and 10 percent.<sup>13</sup> Recovery Refunds reports monthly cost savings for the telecommunications industry between two and 15 percent.<sup>14</sup>

### **Recommendation**

**The State and Consumer Services Agency, or its successor, should hire a private recovery audit firm under a performance-based contract to audit, document and recover any overpayments on state government telecommunications costs. The contingency fees negotiated with the auditing firm should be no more than 10 to 20 percent of the savings recovered.**

### **Fiscal Impact**

Total state government telecommunications costs are about \$120 million annually.<sup>15</sup>

Industry studies indicate error rates average between five and 10 percent.<sup>16</sup> Applying a five percent error rate to \$120 million with a contingency fee of about 15 percent would recover an estimated \$5.1 million per year. Estimated savings are based on a September 2004 implementation date.

#### **General Fund** (dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$1,912	\$0	\$1,912	0
2005–06	\$2,550	\$0	\$2,550	0
2006–07	\$2,550	\$0	\$2,550	0
2007–08	\$2,550	\$0	\$2,550	0
2008–09	\$2,550	\$0	\$2,550	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

**Other Funds**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$1,913	\$0	\$1,913	0
2005–06	\$2,550	\$0	\$2,550	0
2006–07	\$2,550	\$0	\$2,550	0
2007–08	\$2,550	\$0	\$2,550	0
2008–09	\$2,550	\$0	\$2,550	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> Department of General Services, Telecommunications, “About the California Integrated Information Network, CALNET Master Contract,” [http://www.td.dgs.ca.gov/services/ONS/about-theCIIN.htm#\\_top](http://www.td.dgs.ca.gov/services/ONS/about-theCIIN.htm#_top) (last visited June 16, 2004).
- <sup>2</sup> Department of General Services, Telecommunications Division, CALNET Request for Information, Section 3.1, p. 1, <http://www.documents.dgs.ca.gov/td/ons/CALNET%20II/RFI/Section3.pdf> (last visited June 16, 2004).
- <sup>3</sup> E-mails from Barry Hemphill, deputy director for Telecommunications, Department of General Services (DGS); Sandra Bierer, chief, Network Services, DGS, to California Performance Review (May 14, 17, and 21, 2004); and interviews with Barry Hemphill and Sandra Bierer, Sacramento, California (May 14, 17 and 21, 2004).
- <sup>4</sup> E-mails from David Lively and Robert Copp, Office of System Management Operations, Division of Traffic Operations, California Department of Transportation, to California Performance Review (March 4, 5, and 16, 2004).
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- <sup>7</sup> Profit Recovery Group-Schultz International, “Government,” <http://www.prgx.com/experience/government.html> (last visited June 16, 2004).
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- <sup>9</sup> Reason Public Policy Institute and the Performance Institute, “Citizens’ Budget-2003-05, A 10 Point Plan to Balance the California Budget and Protect Quality-of-Life Priorities,” by Carl DeMaio, Adrian Moore, Adam Summers, Geoffrey Segal, Lisa Snell, Vincent Badolato, and George Passantino (Los Angeles, California, April 30, 2003), pp. 74–75, <http://www.performanceweb.org/pi/research/california/citizensbudget.pdf> (last visited May 20, 2004).



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- <sup>10</sup> Jim Maisel, *CashFlow Guardian*, "Recovery Audit: Now In-a-Box," August 2003, p. 2, <http://www.auditsoftware.net/community/how/areas/supplier/tools/recovery20%audits1.pdf> (last visited June 16, 2004).
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- <sup>12</sup> Telesoft, *Recovery Audit*, "Audit Recovery with Guaranteed Results," <http://www.telesoft.com/products/recoveryaudit> (last visited June 16, 2004).
- <sup>13</sup> MorganDoyle Limited, *Cost Audit, Recovery and Optimisation*, "Telecom Audit & Cost Recovery," [http://www.morgandoyle.co.uk/services/cost\\_audit.htm](http://www.morgandoyle.co.uk/services/cost_audit.htm) (last visited June 16, 2004).
- <sup>14</sup> *Recovery Refunds*, "What We Do," <http://www.recoveryrefunds.com/what-we-do.htm> (last visited May 21, 2004).
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# Revenues for Transportation Projects are Increasingly Inadequate to Fund Needed Improvements

## **Summary**

Funding for transportation improvements is not keeping pace with the increasing demands from the growing number of people, vehicles and goods that rely on California's transportation systems. Highways are deteriorating and congestion is causing increased travel time. The state should increase transportation funding, expand the use of financing techniques, and increase flexibility to respond to the growing need to move people and goods safely and efficiently.

## **Background**

### ***Revenues are not growing as fast as demands for transportation improvements***

Transportation projects are generally funded from federal and state user taxes, as well as federal and state taxes on both gasoline and diesel fuel. Most transportation projects are funded on a "pay as you go" basis.

Gasoline and diesel fuel user taxes are 18 cents for each gallon sold and have not changed since 1994.<sup>1</sup> Between 1994 and 2001, however, the cost of roadway construction increased around 42 percent, the annual number of miles traveled on California's roads increased 16.4 percent and the number of registered vehicles increased 29 percent.<sup>2</sup> During the same time period, the taxable sales of fuel only increased 16 percent and only 13 miles of highway were added to the state highway system (from 15,185 miles to 15,198 miles).<sup>3</sup> In 2000, congestion was estimated to cost motorists about \$4.7 billion annually, which equates to about 530,000 hours of vehicle delay.<sup>4</sup>

Increased vehicle efficiency allows more miles of travel with fewer gallons of fuel. With increased miles traveled and less fuel used, revenues for improvements are diminishing. Without revenue sources tied to actual system usage, revenue will never be sufficient to meet the demands for improving the highway system. The existing user tax does not address the increased use of the system by alternative-fueled vehicles. Electric vehicles, fuel cell vehicles or other future fuels would not be taxed under the existing user tax. Unless a method to capture user fees from the new fuels is adopted, revenues for improvements will fall even farther behind system needs.

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Oregon is studying alternative revenue sources for transportation in lieu of the cent per gallon fuel tax. They are focusing on a fee based upon vehicle miles traveled and are leading the nation in this effort. Oregon expects to begin a pilot project to transition from the cents per gallon fuel tax to a user fee based on vehicle miles traveled in early 2005.<sup>5</sup>

***Transportation revenues are spent for other purposes***

Proposition 42, passed in 2002 added Article XIX B to the state constitution. Article XIX B directs a portion of sales taxes collected on gasoline and diesel fuel to be spent on surface transportation. This can only be suspended if the Governor determines a General Fund emergency exists and two-thirds of the Legislature agrees. Then the revenues are transferred to the General Fund. By the end of the Fiscal Year 2005–2006, around \$3.1 billion of the taxes will have been taken from transportation for General Fund expenditures.<sup>6</sup>

Article XIX of California's Constitution requires revenue from the user taxes on gasoline and diesel fuels to be used for certain transportation purposes. While Article XIX restricts the use of the user taxes, it is silent on the use of revenues from the investment of the taxes. Consequently, revenues generated from investing the taxes (over \$40 million during FY 2003–2004)<sup>7</sup> are being used for other purposes.

***Federal funds for California's transportation projects are declining***

California receives around \$2.7 billion of federal transportation funds annually.<sup>8</sup> In 2004, California began blending ethanol with gasoline. Because of this change, federal funds received will be reduced by about \$560 million in FY 2005–2006 and over \$700 million each year thereafter.<sup>9</sup> California is required to add an oxygenate (MTBE or ethanol) to gasoline in order to comply with the Federal Clean Air Act. Prior to 2004, MTBE was being added to gasoline because it was more readily available than ethanol and cheaper. Unfortunately, MTBE was discovered to be infiltrating and contaminating groundwater, so it was replaced with ethanol. The ethanol gasoline blend is taxed by the federal government at a lower rate than the MTBE blend.<sup>10</sup> Part of the annual federal transportation fund allocations are based on a state's payments into the federal highway trust fund. Lower tax rates mean lower payments into the trust fund and lower federal transportation funds allocated to the state. The use of ethanol blends is increasing nationally, resulting in significantly lower revenues for the federal aid transportation program. Congress is considering revising the taxing rates on ethanol blends to the same rate as other blends, which would restore slightly over five cents per gallon to the federal trust fund. Reductions in California's federal allocation will be avoided if Congress increases the tax rate on ethanol blends.<sup>11</sup>

***Maintenance of California's roads is being delayed***

A 1999 report entitled "Inventory of Ten Year Funding Needs for California's Transportation System" identified around \$116 billion of unfunded needs for operations, system expansion, rehabilitation, reconstruction and other work.<sup>12</sup> Maintenance of freeways and highways is



being delayed. There is a backlog of \$587 million of deferred pavement maintenance.<sup>13</sup> Delaying maintenance results in continued decay and higher future repair costs.

In 1996, California ranked ninth in the nation for the most interstate “lane miles” in poor condition. In 2001, California moved to the fourth rank, increasing from 10 percent to 14 percent of its interstate lane miles rated in poor condition.<sup>14</sup> Poor pavement conditions add about \$400 annually to each vehicle’s operating cost. California has six of the ten urban areas in the nation with the highest added annual vehicle operating cost. Los Angeles leads the nation with the highest added annual operating cost of about \$705 per vehicle.<sup>15</sup>

California’s seaports, international airports, trade corridor railways and highways and land ports of entry represent the largest trade transportation complex in the nation. The volume of goods moving through California is expected to increase 56 percent between 1996 and 2016.<sup>16</sup> During 2003, the equivalent of 13.8 million twenty-foot shipping containers passed through the Los Angeles, Long Beach and Oakland ports alone.<sup>17</sup> The trucking industry and railroads provide the means to move the goods. The increased volume will require more trips by both industries. The added truck trips will only add to the current congestion. Increased train trips will add to congestion on the rail lines as well as to road congestion. The rail lines have areas where only one set of tracks are available to serve trains traveling in each direction. Trains traveling in one direction must wait while trains traveling in the opposite direction pass. Also, there are a large number of railroad and roadway crossings. As the number of train trips increases, vehicles will be required to stop more frequently, adding to roadway congestion. Congestion-caused delay based on 2000 estimates costs over \$8,800 per hour in California.<sup>18</sup>

### ***Use of newer transportation financing techniques is limited in California***

While the state generally relies on fuel taxes to fund transportation projects, limited use of other financing tools has been implemented to accelerate projects. General Fund bonds, Grant Anticipation Revenue Vehicle (GARVEE) bonds, public private-partnerships and most recently a modest State Infrastructure Bank are being used.

GARVEE bonds are backed with future federal fund allocations which reduces the amount of future federal funds available for other projects. They also have limited use. The California Government Code restricts the use of GARVEE bonds, allowing no more than 30 percent of the annual federal appropriation for repayment of bonds.<sup>19</sup>

Public-private partnerships have been used for two projects, both constructed as toll roads. Private bonding is used with toll revenues paying the bond payments. This has allowed private investment in the transportation system. Since private bond costs are not exempt from being taxed, the average cost of the private bonds is 20 percent to 25 percent higher than tax exempt bonds.<sup>20</sup>

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The State Infrastructure Bank is a revolving loan program that was established in 2002. The bank, with \$3 million in federal grant funds, provides flexible, short-term financing to public and public-private entities to accelerate transportation projects. Loans from the bank are restricted to between \$300,000 and \$1 million and must be repaid within six years.<sup>21</sup> Projects must also meet federal eligibility requirements. The bank's use has been limited because of the restrictive loan amounts and federal eligibility requirements. Nationally, 32 states have implemented similar programs with loan agreements around \$4.8 billion.<sup>22</sup>

### **Recommendations**

**A. The Governor should pursue a ballot initiative for legislative concurrence and voter consideration to amend Article XIX B Section 1 of the California Constitution as follows:**

1. Amend the state constitution to protect the deposit of the sales tax on fuels to the State Highway Account consistent with current law.
2. Set aside \$20 million per year for five years from funds in the Transportation Investment Fund to be deposited into the "Transportation Finance Bank." Allow up to 100 percent of these funds (with approval from the Secretary of the Business, Transportation and Housing Agency, or its successor) to be used for the payment of principal and interest on bonds issued for expanding the loan program for transportation improvements. Funds should be continuously appropriated; and
3. Establish a major maintenance fund supported by 15 percent of the sales taxes on fuels available for transportation capital improvement projects. Allow up to 100 percent of these funds (with approval from the Secretary of the Business, Transportation and Housing Agency or its successor) to be used for the payment of principal and interest on bonds issued for transportation maintenance improvements. Funds should be continuously appropriated.

**B. The Governor should work with the Legislature to sponsor legislation removing Section 183.1 from the Streets and Highways Code to eliminate conflicts between this code section and amendments to Article XIX of the State Constitution.**

**C. The Secretary of the Business, Transportation and Housing Agency or its successor should develop and implement a pilot project to test the feasibility of implementing a user fee based on actual individual use of the transportation system for funding future operations, maintenance and improvements to the transportation system.**

Vehicle miles traveled should be considered. The Secretary should review efforts by the Oregon State Department of Transportation to implement a pilot project for a user fee based on actual miles traveled.

**D. The Secretary of the Business, Transportation and Housing Agency or its successor should prepare a letter from the Governor to the California Congressional**



**Delegation supporting Congress' efforts to adjust the user tax on ethanol blend fuel to equal non-ethanol blend tax rates.**

- E. The Secretary of the Business, Transportation and Housing Agency or its successor, in cooperation with cities, counties, freight haulers (truck and railroads), the Legislature and the federal government should study how to increase the efficiency of moving goods and reducing congestion on both the highways and railroads.**

The study should also identify appropriate funding for improvements, including greater flexibility using existing funds and new revenues sources. The Secretary of the Business, Transportation and Housing Agency or its successor should report the results of the study to the Governor.

***Fiscal Impact***

The increase to the State Highway Account in the first year of implementation is anticipated to be over \$500 million with federal gas tax correction. Amending California's Constitution to require revenues generated from investing motor vehicle fuel taxes to be spent for the same uses as the motor vehicle taxes would result in about \$40 million each year. Constitutionally securing the sales tax on fuels for the State Highway Account would ensure that about \$1.6 billion annually is protected and available for highway expenditures.

During 2001 there were approximately 310.7 billion vehicle miles traveled on California's roads and highways.<sup>23</sup> A one-tenth of a cent fee per mile traveled would generate about \$310 million. Successful implementation of a mileage fee would provide a revenue source that would increase in proportion to the actual use of the transportation system.

**General Fund and Special Fund**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Special Fund Revenue</b>	<b>General Fund Revenue</b>	<b>Net State Revenue</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$0	\$0	\$0	0
2006–07	\$560,000	\$0	\$560,000	0
2007–08	\$700,000	\$0	\$700,000	0
2008–09	\$700,000	\$0	\$700,000	0

Net savings are available if Congress restores fuel tax rates on ethanol blends.

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

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## Endnotes

- <sup>1</sup> California Revenue and Tax Code Division 2, Part 2, Chapter 2, Section 7360, <http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=rtc&codebody=&hits=20> (last visited June 10, 2004), and Division 2, Part 3, Chapter 2, Section 8651, <http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=rtc&codebody=&hits=20> (last visited June 10, 2004).
- <sup>2</sup> California Department of Transportation "Price Index for Selected Highway Construction Items," [http://www.dot.ca.gov/hq/esc/oe/contract\\_progress/4th\\_QTR\\_2003.pdf](http://www.dot.ca.gov/hq/esc/oe/contract_progress/4th_QTR_2003.pdf) (last visited June 17, 2004); and California Department of Transportation "TASAS collision data annual publication," contact John Wolf, chief, office of system management planning, Caltrans ((916) 654-2627); and Federal Highway Administration "Highway Statistics 1994 and 2001", Table MV1, <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).
- <sup>3</sup> Federal Highway Administration "Highway Statistics 1994 and 2001," Table MF1, <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004); and California Department of Transportation "TASAS collision data annual publication," contact John Wolf, chief, office of system management planning, Caltrans ((916) 654-2627).
- <sup>4</sup> California Legislative Analyst's Office "Analysis of the 2004–05 Budget Bill" February 2004 p. 6, <http://www.lao.ca.gov/> (last visited June 1, 2004).
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- <sup>7</sup> California Department of Transportation "2004 State Transportation Improvement Program Fund Estimate," December 11, 2003 Appendix C.
- <sup>8</sup> California Department of Transportation, Office of Federal Resources "Table TEA 21 file ROI-OA vs. HTF," May 5, 2004, John Taylor, Office of Federal Resources, Department of Transportation.
- <sup>9</sup> California Department of Transportation "2004 State Transportation Improvement Program Fund Estimate," p. 8, December 11, 2003.
- <sup>10</sup> Federal Highway Administration "Highway Statistics 2001," Table FE 21 B, <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).
- <sup>11</sup> Federal Highway Administration "Highway Statistics 2001," Table FE 21 B, <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).
- <sup>12</sup> California Transportation Commission "Inventory of Ten-Year Funding Needs for California's Transportation System," p. 11, May 5, 1999.
- <sup>13</sup> California Legislative Analyst Office "Analysis of the 2004–05 Budget Bill," February 2, 2004, p. 11, <http://www.lao.ca.gov> (last visited June 1, 2004).
- <sup>14</sup> The Road Information Center "The Interstate Highway System," Appendix A, January 2003, <http://www.tripnet.org/research.htm> (last visited June 10, 2004).
- <sup>15</sup> The Roads Information Center "Bumpy Roads Ahead," p. 15, April 2004, <http://www.tripnet.org/research.htm> (last visited June 11, 2004).
- <sup>16</sup> State of California, Business, Transportation and Housing "Global Gateway Development Program," p. 8, January 2002.





- <sup>17</sup> California Department of Transportation, Office of Goods Movement, Richard Nordalh, March 8, 2004.
- <sup>18</sup> California Legislative Analyst Office "Analysis of the 2004–05 Budget Bill," February 2, 2004.
- <sup>19</sup> Gov. C. Section 14553.4, <http://www.leginfo.ca.gov/cgi-bin/calawquery?codesection=gov&codebody=&hits=20> (last visited June 11, 2004).
- <sup>20</sup> Reason Public Policy Institute "The Case for Tax Exempt Financing of Public Private Partnerships," Karen J. Headlund, <http://www.rppi.org/HEDLPDF.pdf> (last visited June 11, 2004).
- <sup>21</sup> California Transportation Commission "Transportation Finance Bank Revolving Program Guidelines," January 2003, [http://www.dot.ca.gov/hq/innovfinance/t\\_f/tfb\\_guidelines.pdf](http://www.dot.ca.gov/hq/innovfinance/t_f/tfb_guidelines.pdf) (last visited June 1, 2004).
- <sup>22</sup> Federal Highway Administration "FHWA Innovative Finance Quarterly," Spring 2004, [http://www.fhwa.dot.gov/innovativefinance/ifq101.htm#sib\\_highlights](http://www.fhwa.dot.gov/innovativefinance/ifq101.htm#sib_highlights) (last visited June 11, 2004).
- <sup>23</sup> Federal Highway Administration "FHWA Highway Statistics 2001" Table VM-2, <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).

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# Federal Funding for California Highways Falls Short

## **Summary**

California's taxpayers pay more taxes into the Federal Highway Trust Fund than they receive from the Federal Highway Administration for transportation projects. Congress reduces the amount of funds available to states for discretionary spending by withholding funds from distribution and earmarking them for specific projects. In addition, homeland security funds provided by Congress have not been available for critical transportation system improvements to assure continued system use should a terrorist attack occur.

## **Background**

### ***Taxpayers pay more federal fuel taxes than is returned***

Since 1956, Californians have paid \$2.1 billion more in fuel taxes into the federal highway trust fund than the federal government has sent to California's federal aid highway program. California paid 10.2 percent of the national trust fund payments while receiving only 8.9 percent of the trust fund disbursements.<sup>1</sup>

Federal funds are distributed to the states by several formulas. Some factors included in the formulas are interstate lane miles, vehicle miles traveled, and payments into the federal highway trust fund. The formulas are not favorable for California, but are very favorable for 35 other states, which receive transportation funds ranging from 102 percent to 688 percent of their payments into the trust fund.<sup>2</sup> Attempts by several states over the years to provide better equity through the formulas have not been successful.

Each state determines which projects will be funded with the formula-distributed federal funds. Congress, however, withholds funds from the formula distribution and earmarks them for specific projects. Local agencies (cities and counties) submit lists of projects to their congressional representatives requesting funding from the earmarked funds. Typically, the projects are not a high enough priority to be funded under the current state programming cycle. Since funding requests from local agencies exceed the amount of funds available, Congress spreads the funds across the projects, rarely providing projects with full funding.

States are then forced to reprioritize planned projects, redirecting funds from higher priority projects to the earmarked funded projects. Congress, in the 1997 Transportation Enhancement Act for the 21<sup>st</sup> Century (TEA-21), earmarked \$9.36 billion nationally. California received \$877 million for 156 projects.<sup>3</sup> The funding, allocated incrementally over six years, provided on

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average about 25 percent of the projects' full costs, leaving the state to make up the remaining 75 percent.

Since earmarked projects require funds to be redirected from priority projects, they are slow to develop or may even be abandoned. For example, work has not begun on 52, or about 33 percent, of California's TEA-21 earmarked projects, which received about \$170 million in federal funds. While work has started on the remaining 104 projects, more than \$279 million in federal funds remains unspent.<sup>4</sup> Earmarking funds is not an efficient use of valuable transportation funds since hundreds of millions of dollars are not used for years.

### ***Homeland security federal funds***

Following the 9/11 disaster, the federal government established the Department of Homeland Security (FDHS). Since then, FDHS has directed federal homeland security funding toward the security of vital infrastructure facilities and people. Funds have been limited and not allocated to critical transportation improvements that would assure continued operation should terrorists attack and damage vital transportation systems.

The California Department of Transportation (Caltrans) identified a network of lifeline routes following two major earthquakes in California.<sup>5</sup> To be effective, lifeline routes need to remain open following a disaster, be quickly reestablished or detours quickly implemented. The routes were identified based on the need to secure disaster areas to provide emergency vehicles access, evacuate injured people, provide medical support, protect infrastructure from further damage, and move people and goods to minimize negative economic impact.

During 2000, \$196 billion of international goods were moved through the ports of Los Angeles and Long Beach, the first and second largest ports, respectively, in the United States. Additionally, in 2000 around \$342 billion of domestic goods were moved via all trade corridors in California. All of these goods are moved over lifeline routes and railroad lines for distribution nationally and for export to other countries.<sup>6</sup> Homeland security funds should be increased and allowed to be spent on improvements for lifeline routes to assure continuous flow of goods through California. Without increased funding to assure the integrity of the lifeline routes, a terrorist attack could interrupt the movement of goods, negatively impacting the economy of the state and the nation.

### ***Recommendations***

- A. The Business, Transportation and Housing Agency, or its successor, should coordinate with local agencies to select (based on comprehensive planning) a list of high priority projects for earmarking by Congress.**

The Secretary should prepare a letter for the Governor's signature to California's congressional delegation supporting fund earmarking for the projects. Afterwards,



projects proposed for earmarked funding should be determined annually, by June 30 and submitted by the Governor's letter to California's Congressional Delegation by July 15 each year.

**B. The Business, Transportation and Housing Agency, or its successor, should identify sites and estimate the cost of improvements for lifeline routes that cannot be quickly reopened or detours quickly established in the event of an emergency.**

The Secretary should prepare a letter for the Governor's signature to California's congressional delegation requesting increased homeland security funding directed to life line routes to assure continued operation following terrorist attacks.

***Fiscal Impact***

It is not possible to determine how much, if any, added federal earmark funding Congress would allocate to California. However, if coordination with local agencies to increase and direct earmarked funding to high priority projects is successful, priority projects could be completed earlier.

It also is not possible to determine how much, if any, homeland security funds Congress may allocate to California. However, if successful, and routes remain open following damage to the life line routes, negative impacts are reduced, if not avoided.

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**Endnotes**

- <sup>1</sup> Table FE-221 Federal Highway Administration "Highway Statistics 2001" website <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).
- <sup>2</sup> Table FE-221 Federal Highway Administration "Highway Statistics 2001" website <http://www.fhwa.dot.gov/policy/ohpi/hss/hsspubs.htm> (last visited June 7, 2004).
- <sup>3</sup> Section 1602 High Priority Projects "1997 Transportation Enhancement Act for the 21<sup>ST</sup> Century (public law 105-178)" (Washington, DC, June 9, 1998), p. 173, <http://www.fhwa.dot.gov/tea21/tea21.pdf> (last visited June 11, 2004).
- <sup>4</sup> Caltrans report—"TEA 21 High Priority Projects—Unobligated Funds Demo ID" As March 24, 2004 ( on request computer report FMISN60A) contact April Nitsos office of local programs California Department of Transportation, (916) 653-8450.
- <sup>5</sup> State of California, Transportation Planning Program, "Life Line Routes" (Sacramento, California, December 10, 1997).
- <sup>6</sup> OnTrack Joint Powers Authority "The Alameda Corridor East: A program of national significance—moving goods and serving people across America" (Brea, California), <http://www.ontrac-jpa.org/NationalSignificance.pdf> (last visited June 11, 2004).





# Integrate the State's Infrastructure Research and Development Programs

## **Summary**

California spends millions of dollars annually on infrastructure research programs without a strategic plan or coordination among responsible agencies. This fragmented approach hinders California's ability to solve its most critical infrastructure problems and fully leverage research dollars and ideas. Consolidating the state's infrastructure research programs would address these issues.

## **Background**

The state spends more than \$150 million annually on research and development to find solutions to infrastructure problems.<sup>1</sup> Infrastructure includes highways, streets, bridges, mass transit, airports, water delivery systems, electric power generation and transmission, telecommunications, public buildings and housing, and the attending operational procedures, management practices and policy development.<sup>2</sup>

The bulk of California's infrastructure was built in the 1960s for a smaller and less demanding population, when a single agency was able to build the primary systems of aqueducts, highways, and universities.<sup>3</sup> Today, aging highways, power plants, and other systems are unable to meet the demand of California's rapidly growing population; the state has invested "too little for too long" in infrastructure improvements.<sup>4</sup> Research and development is one way to find solutions to these problems.<sup>5</sup>

## **Research and development programs are fragmented and uncoordinated**

The infrastructure research and development agencies include: the California Department of Transportation (Caltrans), California Energy Commission (CEC), Integrated Waste Management Board (IWMB), Seismic Safety Commission and the State Water Resources Control Board (SWRCB).<sup>6</sup> Each sets its own goals and research agenda.<sup>7</sup>

In 1999, the legislature recognized the problem of uncoordinated research and development efforts and attempted to solve it by establishing the California Research and Development Council.<sup>8</sup> The legislature found that the state's "... research and applied applications programs are uncoordinated and not leveraged together to provide services to industry in a



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flexible, agile, and targeted way . . . a more strategic focus on state research and development program and tax incentives is needed.”<sup>9</sup> Although the council was never fully implemented due to budget cuts, several research managers continue to meet when possible.<sup>10</sup>

The awareness of studying innovative infrastructure solutions as a whole is growing. The National Research Council warns that not recognizing infrastructure as a system leads to large public controversy, high costs and disruptions in service.<sup>11</sup> It found that “. . . just as infrastructure professionals have learned that multidisciplinary teams are needed in planning and design, infrastructure research, increasingly, must bring together people with diverse backgrounds to pursue a complex common objective.”<sup>12</sup> New Zealand has put its infrastructure elements together under one minister to ensure integration.<sup>13</sup>

In addition to the problem of uncoordinated research among agencies, the state lacks a strategic plan for infrastructure research.<sup>14</sup> An effective research and development program must have a plan based on the state’s vision, a strong leader and organization to ensure each activity fulfills that vision, and a qualified staff knowledgeable in research areas.<sup>15</sup> The strategic plan should define the major critical areas of research, identify the resources for short- and long-term projects, establish the process for identifying projects that could lead to commercialization, and set milestones and performance measures.<sup>16</sup> A successful infrastructure research and development program requires that requests for research must be based on a strategic plan and be advertised for competitive solicitation.<sup>17</sup>

### ***Commercializing research results is fragmented***

The fragmentation of research and development results in a fragmented system for implementing or commercializing research results. Commercializing the results of research is how research is turned into a useable product. This allows a product to be built for the state’s use and creates business opportunities and the potential for state revenue enhancements.<sup>18</sup> California state government lacks a standard policy on how and when it should commercialize research results. As a result, state agencies develop strategies separately. For example, Caltrans invested more than \$1 million in a building intended to get business and researchers to collaborate, CEC requires a market plan as part of its research, and the Business, Transportation and Housing Agency has recommended increasing the University of California’s (UC) commercialization processes.<sup>19</sup> This disjointed effort dilutes the state’s ability to pool its resources, develop targeted and marketable technology solutions and fully leverage private sector funds.<sup>20</sup> According to one venture capitalist, investors with billions of dollars in venture capital are waiting for small, innovative, emerging growth companies to appear.<sup>21</sup> Inventions and technologies discovered from research are a critical source for business creation, but the key is getting this research to a marketable stage and making it known to the private sector.<sup>22</sup>



Several states are addressing this issue by creating central offices or joint power agreements or public benefit corporations to bring education, industry, and government together.<sup>23</sup> While flexible, these options create additional layers of government, can be costly and complex, and have the potential for conflicts of interest.<sup>24</sup>

Given California's status as a recognized leader in research and development achievements, its wealth of venture capital, and a lack of significant public funding, the challenge is how to get the most out of the current system without adding bureaucratic layers.<sup>25</sup> Several studies examined ways a state research and development program can be more effective and efficient, and made the following recommendations:

- When selecting research be clear on the intended use of the results;
- Involve business experts, key stakeholders and end-users at all stages of the research; and
- Make the research results easy to find and use by the business community.<sup>26</sup>

Caltrans' Division of Research and Innovation has made strides to improve its research selection process and CEC's Public Interest Energy Research program has a strong focus on market analysis for commercializing research. The missing piece is ensuring that the business community has easy access to this information and can use the results. Currently, research results are scattered in databases across the UC system, UC technology transfer offices, CEC, Caltrans and other state agencies. The business community has been frustrated with their lack of access to the research results.<sup>27</sup> Experts recommend a "one-stop shop" model with research results easily accessible to entrepreneurs via databases or research conferences.<sup>28</sup> Three existing business and research groups are prepared to get research results to market; these include regional technology alliances, local economic development groups, and the California Council on Science and Technology. Regional alliances are private non-profit agencies that bring local colleges and universities, businesses and local governments together to ensure research meets regional needs. Local economic development groups work with cities and universities to create business opportunities and the California Council on Science and Technology is established in legislation and is a member of the National Research Council.<sup>29</sup>

### ***Barriers to effective state research and development***

In addition to fragmented planning and policy direction, the problems with the state's research and development programs are compounded by an inefficient implementation process. Three large barriers exist:

- The contracting processes for undertaking the research;
- Feasibility study report (FSR) requirements; and
- The sole source process for using research results.<sup>30</sup>

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Because state agencies are not required to use standardized agreement terms, it can take three months to one year to get a contract executed and cost up to \$10,000 per contract.<sup>31</sup> There are approximately 70 active research contracts that cost the state nearly \$700,000 to prepare.<sup>32</sup> Critical issues, such as intellectual property rights, overhead rates and ownership of publishing and royalty rights are renegotiated for each contract which takes considerable time.<sup>33</sup> Additional costs are incurred due to nonuniformity of contract terms, non-uniform complex financial accounting and invoicing requirements and a lack of synchronization with federal contracting terms.<sup>34</sup> In contrast, the federal government has streamlined its process to require minimal administrative rules and procedures for the use of research funds.<sup>35</sup>

In addition, the State Administrative Manual requires a Feasibility Study Report (FSR) to be completed and approved by the Department of Finance (DOF) prior to expending funds on projects involving information technology.<sup>36</sup> Caltrans has been advised that its intelligent transportation systems research falls within this category. This research is one of the state's primary options for solving critical traffic congestion problems, yet interpreting the FSRs requirement to apply to the initial research phase can delay or kill a project.<sup>37</sup> The FSR's detail the technology, implementation procedures, costs and cost-benefit ratios of a system before it is implemented. Research by its nature cannot meet this standard because the results are unknown and unquantifiable at the outset, making it nearly impossible for the DOF to approve a research FSR.

When research results are commercialized and manufactured to meet a state need, the state may never be able to use it—wasting the research funding, jeopardizing worker safety, and reducing productivity.<sup>38</sup> For example, the automated roadway debris vacuum system (ARDVAC) is the result of research to automate roadway cleanup. The ARDVAC reduces the number of employees needed for roadway cleanup, their exposure to traffic hazards, and reduces lane closure and traffic disruption because it can get work done faster. To get ARDVAC manufactured, it was licensed to only one vendor (no manufacturers would have applied for the license if they would have had to compete with other manufacturers). As a result, Caltrans was not able to get the required three bids necessary to award a contract and it has taken more than a year to try to get a sole source approval—which is still not approved.<sup>39</sup>

## ***Recommendations***

- A. The Governor should work with the Legislature to create the Office of Infrastructure Research and Development within the Business, Transportation and Housing Agency or its successor.**

The office's functions should come from Caltrans' and the California Energy Commission's research units and infrastructure research activities from the Integrated Waste Management Board, Seismic Safety Commission, State Water Resources Control Board and Caltrans' Division of Traffic Operations, Planning and Engineering Services.



- B. The Secretary of the Business, Transportation and Housing Agency, or its successor, should establish an Infrastructure Advisory Council to provide input and advice to the Office of Infrastructure Research and Development on a strategic plan for infrastructure research and development.**

The Infrastructure Advisory Council should include representatives from the California Council on Science and Technology, California Energy Commission, Caltrans' research and development advisory group, infrastructure division chiefs, resources departments, and regional technology and economic development groups.

- C. The Secretary of the Business, Transportation and Housing Agency, or its successor, should direct the Office of Infrastructure Research and Development to partner with regional technology alliances and local economic development groups to review research concepts for commercial potential, before and after research is complete.**

Funds would come from the savings from consolidating research and development administrative functions. Using the existing California Energy Commission or Caltrans websites and databases, the office should develop a section that connects all the UC Technology Transfer Offices' and the state's research databases to display research results to the general public. The office should send electronic updates to the Infrastructure Advisory Council, economic and regional technology groups as research is completed. Annual meetings should be held with these business groups to review research efforts. These changes can be implemented by May 2006.

- D. The Secretary of the Business, Transportation and Housing Agency, or its successor, should consolidate the administrative functions of the Office of Infrastructure Research and Development and make the following efficiency improvements:**
- Adopt one research contract with one overhead rate and one policy on intellectual property rights and royalty issues. Establish one invoicing process;
  - Consolidate and integrate the status of research and results into one database, using the CEC database as a model so additional costs are not incurred;
  - Negotiate with the Department of Finance to require an FSR after the initial research is conducted and before any product is implemented instead of at the beginning of research; and
  - Work with the Department of General Services to develop a policy for sole source purchasing approval when there is only one vendor.

### ***Fiscal Impact***

Because the primary resources for infrastructure research are administered by Caltrans and CEC, savings from the consolidation of administrative functions will be from these two departments. IWMB, SSC and SWRCB's research funding is inconsistent, and therefore savings from their consolidation will not be included in the gross savings figure.

Caltrans and CEC have approximately 23 research and development administrative personnel years (PY).<sup>40</sup> Assuming \$83,000 as the average cost for a PY, which includes benefits and operational expenses, the total administrative cost is about \$1.9 million. Studies show a range of cost savings, from 12 percent to 30 percent, when administrative functions are consolidated.<sup>41</sup> Assuming a conservative 15 percent cost savings by combining Caltrans and CEC's research and development administrative functions would reduce the staff by three PY and about \$283,000. Savings from administrative consolidation are estimated to begin in Fiscal Year 2006–2007.

Implementing a new standard contract reduces administrative costs by \$700,000 (assuming \$10,000 per contract with approximately 70 contracts over two years). These research and development funds are primarily federal (with a 20 percent state special fund match) and can only be used for related activities.

**Other Special Funds**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	\$0	\$0	0
2005–06	\$350	\$0	\$350	0
2006–07	\$983	\$0	\$983	(3)
2007–08	\$983	\$0	\$983	(3)
2008–09	\$983	\$0	\$983	(3)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> Calculations made using three state documents: (1) California Office of the Governor, "Proposed Budget, January 2004–05" (Sacramento, California); (2) Department of Finance, "Wages and Salaries for California Energy Commission, January, 2004–05" (Sacramento, California); (3) E-mail from Bo Nishimura, Caltrans, Division of Innovation and Research (May 15, 2004) and e-mail from Rubia Packard, Integrated Waste Management Board (May 21, 2004) to California Performance Review.
- <sup>2</sup> Public Policy Institute of California, "Building California's Future: Current Conditions in Infrastructure Planning, Budgeting, and Financing," by Michael Newman and Jan Whittington (San Francisco, California, June 2000), p. iii.





- <sup>3</sup> James P. Gould and Andrew C. Lerner, *"Toward Infrastructure Improvement, An Agenda for Research"* (Washington, D.C., National Academy Press, 1994), p. 9; *"Public Policy Institute of California, Building California's Future: Current Conditions in Infrastructure Planning, Budgeting, and Financing"* (San Francisco, California, June 2000), p. vi.
- <sup>4</sup> James P. Gould and Andrew C. Lerner, *"Toward Infrastructure Improvement, An Agenda for Research"* (Washington, D.C., National Academy Press, 1994), p. 10; Office of the Governor, *"2003 California Five Year Infrastructure Plan"* (Sacramento, California, March 2003), p. 195.
- <sup>5</sup> James P. Gould and Andrew C. Lerner, *Toward Infrastructure Improvement, An Agenda for Research* (Washington, D.C., National Academy Press, 1994), p. 14.
- <sup>6</sup> California Gov. C. 14450–14456; California Pub. Res. C. 25600–25619; California Pub. Res. C. 40000; California Gov. C. 8899.10–8899.16; and California Water C. 12948–12949.6.
- <sup>7</sup> Interviews with Terry Surles, program manager, Public Interest Energy Research, California Energy Commission, Sacramento, California (March 22, 2004); Larry Orcutt, chief, Division of Innovation and Research, Caltrans, Sacramento, California (March 18, 2004); Howard Levenson, deputy director, Integrated Waste Management Board, Sacramento, California (May 14, 2004); and Henry Sepulveda, Seismic Safety Commission, Sacramento, California (May 14, 2004).
- <sup>8</sup> State Senate Bill 1136—Vasconcellos (Session: 2000–01), Chapter 1056.
- <sup>9</sup> State Senate Bill 1136—Vasconcellos (Session: 2000–01), Chapter 1056.
- <sup>10</sup> Interview with Bonnie Cornwall, staff scientist to SB 1136, Sacramento, California (April 14, 2004).
- <sup>11</sup> James P. Gould and Andrew C. Lerner, *"Toward Infrastructure Improvement, An Agenda for Research"* (Washington, D.C., National Academy Press, 1994), p. 13.
- <sup>12</sup> James P. Gould and Andrew C. Lerner, *"Toward Infrastructure Improvement, An Agenda for Research"* (Washington, D.C., National Academy Press, 1994), pp. 2, 13.
- <sup>13</sup> Parliament of New Zealand, *"Ministerial List"* <http://www.dpmc.govt.nz/cabinet/ministers/ministerial-list.html> (last visited June 17, 2004).
- <sup>14</sup> California Council on Science and Technology, *"California Report on the Environment for Science and Technology"* (Sacramento, California, November 1999), p. 19.
- <sup>15</sup> National Governors Association, Best Practices Center, *"Using Research and Development to Grow State Economies,"* by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), p. 22; California Council on Science and Technology, *"California Report on the Environment for Science and Technology"* (Sacramento, California, November 1999), p. 19; California Council on Science and Technology, *"Independent PIER Review Panel Report"* (Sacramento, California, March 2000), pp. 8–9.
- <sup>16</sup> California Council on Science and Technology, *"Independent PIER Review Panel Report"* (Sacramento, CA, March 2000), pp. 8–9; California Department of Transportation, *"Commercialization of Intelligent Transportation Systems Interim Report,"* by Williams Wallace Management (Sacramento, California, 2001), p. 1 (consultant's report).
- <sup>17</sup> National Governors Association, Best Practices Center, *"Using Research and Development to Grow State Economies,"* by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), p. 22; California Council on Science and Technology, *"California Report on the Environment for Science and Technology"* (Sacramento, CA, November 1999), p. 19; California Council on Science and Technology, *"Independent PIER Review Panel Report"* (Sacramento, CA, March 2000), pp. 8–9.
- <sup>18</sup> University of California, *"UC Technology Transfer 2002 Annual Report, Technology Transfer Program"* (Oakland, CA, 2002) p. 1; National Governor's Association, Best Practices Center, *"A Governor's Guide to Strengthening State Entrepreneurship Policy"* (Washington, D.C., February 2004), p. 7.

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- <sup>19</sup> California Department of Transportation, Division of Research and Innovation, Master Agreement 65A0013, Task Order 3020, with University of California, Berkeley, Berkeley, California, December 1999, p. 1; California Energy Commission, "Final Advance Reciprocating Internal Combustion Engine, Evaluation Criteria" (Sacramento, CA, March 2004), p. 5; California Business, Transportation, and Housing Agency, "Recommendation Improving the Effectiveness of the University of California Technology Transfer Process and Enhancing Technology Commercialization" (Sacramento, California, December 22, 2003), p. 5.
- <sup>20</sup> California Council on Science and Technology, "California Report on the Environment for Science and Technology" (Sacramento, California, November 1999), p. 19.
- <sup>21</sup> Jon Gregory, "Emerging Growth Companies: California's Forgotten Engines of Economic Growth" (Chico, California, 2001), p. 3.
- <sup>22</sup> National Governors Association, Best Practices Center, "Using Research and Development to Grow State Economies," by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), pp. 9–13; and Business, Transportation and Housing Agency, "Recommendation Improving the Effectiveness of the University of California Technology Transfer Process and Enhancing Technology Commercialization" (Sacramento, California, December 22, 2003), p. 5.
- <sup>23</sup> National Governors Association, Best Practices Center, "Using Research and Development to Grow State Economies," by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), pp. 9–13; California Council on Science and Technology, "Independent PIER Review Panel Report" (Sacramento, California, March 2004), pp. 28–29.
- <sup>24</sup> California Council on Science and Technology, "Independent PIER Review Panel Report" (Sacramento, California, March 2004), pp. 28, 29.
- <sup>25</sup> National Governors Association, Best Practices Center, "Using Research and Development to Grow State Economies," by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), p. 8.
- <sup>26</sup> California Department of Transportation, "Commercialization of Intelligent Transportation Systems Interim Report," by Williams Wallace Management (Sacramento, California, 2001), p. 1 (consultant's report); interview with Scott Lenet, founder and managing director, DFJ-Frontier Venture Capitalist, Sacramento, California (April 15, 2004); National Governors Association, Best Practices Center, "Using Research and Development to Grow State Economies," by Dan Bergland and Marianne Clarke (Washington, D.C., 2000), p. 7; and Business, Transportation and Housing Agency, "Recommendation Improving the Effectiveness of the University of California Technology Transfer Process and Enhancing Technology Commercialization" (Sacramento, California, December 22, 2003), p. 5.
- <sup>27</sup> Interviews with Jon Gregory, CEO and President, Golden Capital Network (May 29, 2004); and Scott Lenet, managing director of DFJ Frontier (April 15, 2004).
- <sup>28</sup> National Governor's Association, Best Practices Center, "A Governor's Guide to Strengthening State Entrepreneurship Policy" (Washington, D.C., February 2004), p. 12; Interview with Wayne Schell, President, California Association for Local Economic Development (Sacramento, May 5, 2004).
- <sup>29</sup> CCST, <http://www.ccst.us/ccst/about/abdex.html> (last visited May 29, 2004).
- <sup>30</sup> Interview with Larry Orcutt.
- <sup>31</sup> E-mail from Marcella Harris, to California Performance Review (May 20, 2004); and interview with Ann Blazina, Caltrans Contracts, Sacramento, California (May 25, 2004).
- <sup>32</sup> E-mail from Bo Nishimura, Caltrans, Division of Innovation and Research (May 15, 2004); e-mail from Rubia Packard, Integrated Waste Management Board (May 21, 2004); and e-mail from Sherri Guzman, California Energy Commission (May 19, 2004) to California Performance Review.





- <sup>33</sup> *University of California, Davis, Transfer Office and Office of the President, University of California Agreement*, by Alan Bennett (Davis, California, 2004), p. 1.
- <sup>34</sup> *University of California, Davis, Transfer Office and Office of the President, "University of California Agreement,"* by Alan Bennett (Davis, California, 2004), p. 1.
- <sup>35</sup> *The Bayh-Dole Act, The Patent and Trademark Law Amendments Act* (Ref. P.L. 96-517), 1980, and (P.L. 98-620), 1984.
- <sup>36</sup> *State Administrative Manual, Section 4819.35*; <http://sam.dgs.ca.gov/TOC/4800/4819.35.htm> (last visited June 17, 2004).
- <sup>37</sup> *Interview with Larry Orcutt.*
- <sup>38</sup> *Interview with Greg Larson, office chief, Division of Research and Innovation, Caltrans, Sacramento, California* (March 18, 2004).
- <sup>39</sup> *Interview with Greg Larson.*
- <sup>40</sup> *E-mail from Caltrans, Division of Innovation and Research* (May 15, 2004); *e-mail from Integrated Waste Management Board* (May 21, 2004); and *California Energy Commission* (May 19, 2004) to California Performance Review.
- <sup>41</sup> *Reason Public Policy Institute and the Performance Institute, "Streamline and Reorganize State Government through Consolidation and E-Government"* (Los Angeles, California, 2003) p. 42; *Executive Office of the Budget, Office of Management and Budget, "Circular No. A-76 (Revised)"* (Washington, D.C., May 29, 2003) p. 1; *New South Wales Government in Australia, "Shared Corporate Services-Introduction,"* <http://www.oict.nsw.gov.au/content/3.6.scs.asp> (last visited June 17, 2004).

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INF 18

# Consolidate and Coordinate State Infrastructure Planning and Programming

## Summary

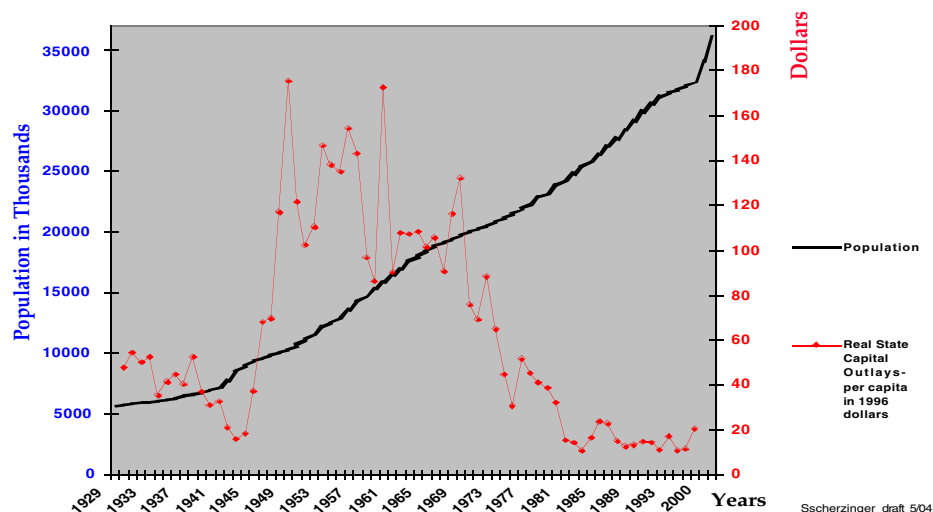
Currently, the state's infrastructure planning and funding decisions are made in a disjointed fashion, which is resulting in the potential for conflict between different state and local agencies, and is creating delay, increased cost, or failure to deliver projects at all.

A consolidated state infrastructure planning organization should be created through the use of existing state boards, agencies, and departments to provide needed, timely and cost-effective improvements to the state's infrastructure.

## Background

California's population continues to grow rapidly while its investment in new infrastructure and the operation and maintenance of that infrastructure has not kept pace (Exhibit 1). Traffic congestion continues to rise, water supplies are in question, there is insufficient housing, and a lack of educational facilities. Limited electric capacity could jeopardize California during the next heat wave. In the State Commission on Building for the 21<sup>st</sup> Century Report, it was noted that there is a need for approximately \$100 billion in infrastructure improvements during the next decade.<sup>1</sup> The way decisions are made about planning, prioritizing, evaluating and funding state infrastructure must change to adequately meet the basic needs of future Californians.<sup>2</sup>

**California Population Growth vs. Infrastructure Expenditures**



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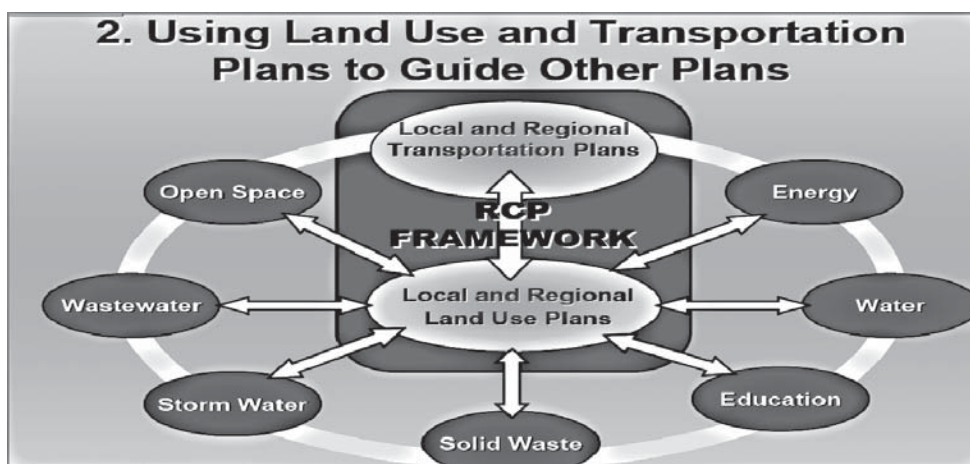
### **State agencies**

Despite these challenges, no formal coordinated process exists to prioritize or strategically plan how tens of billions of dollars will be spent in coming years to satisfy infrastructure capital and maintenance expenses. Instead, short-term decisions are made to fund individual projects or pay for long-term maintenance without consideration of how the projects will help California and its communities meet the highest overall needs in the decades ahead.<sup>3</sup>

Planning and funding of California's infrastructure has been highly fragmented causing the building, operation and maintenance of the systems to be lengthy, difficult and expensive endeavors.<sup>4</sup> Many state infrastructure providers are "stove piped" within separate, independent organizations. Stovepipe cultures create a false sense of independent responsibilities, differing government mandates and funding, and narrow agency-specific performance measures. If a shared infrastructure vision was pursued and comprehensive performance measures put in place, state agencies would find opportunities to leverage strengths and funding sources.<sup>5</sup> The collaboration would focus on responding to the public's perspective of total system performance instead of individual government agency missions and internal efficiency measures that may have little to do with the actual provision of needed infrastructure.<sup>6</sup>

The lack of coordination between state agencies frustrates local governments and communities, making it difficult to work collaboratively on joint infrastructure projects to provide needed infrastructure.<sup>7</sup> The San Diego Association of Governments (SANDAG) has taken the steps to coordinate infrastructure planning among the jurisdictions within San Diego County and could be used as a model for statewide implementation.

**Example:** The SANDAG Regional Comprehensive Plan (RCP) is the long-range planning/funding framework for infrastructure in the San Diego region. The RCP defines a shared vision of the future and lays the foundation to connect local and regional policy decisions for infrastructure and land use. See chart below.





### **State and local agency coordination**

Local General Plans provide the framework for land use and infrastructure decisions. They are subject to the California Environmental Quality Act (CEQA). The process is very focused on meeting local concerns for the short-term, yet may not address long-term infrastructure, financial and environmental needs. While the state plays a leadership role on a statewide level, an effective infrastructure investment strategy requires coordinated local planning by all of the state's investment partners—federal, state and local governments, the private sector and the public. Insufficient coordination causes state and local governments to spend millions of dollars on infrastructure that is not focused on the highest priority needs and, in fact, contribute to growth patterns that require significant long-term investment for operation and maintenance.<sup>8</sup> These growth patterns may also contribute to further environmental degradation, depletion of needed farmlands and forests and may not be sustainable over the long term.<sup>9</sup>

**Example:** Solano County needed to provide its share of regional affordable housing. The county worked in partnership with the State Department of Water Resources to produce a General Plan Amendment and CEQA documentation to allow for provision of water transfers under state contract to serve the new housing residents. Absent coordination at the local, regional and state levels, the community would have had all the necessary infrastructure, except water, the development would have been delayed and housing costs would have escalated.

**Example:** Maryland and Oregon have taken steps to work with local agencies to try to ensure that growth and land-use changes occur in areas where adequate water, transportation and other infrastructure is available. Maryland targets state funding for infrastructure projects to communities with "Priority Funding Areas" (PFA) that are designated through legislation and adopted by the counties. PFA designation is based on a community's growth policy that paces developed acreage and the availability of infrastructure capacity to the demands of future population. The goal is to prevent shortages of water or power, as well as avoiding inefficient patterns of development or wasteful use of public services.<sup>10</sup>

### **Change the way we do business**

Investment and development of infrastructure has not increased to meet the demand created by population growth in California. The state can no longer continue with its existing planning and funding system for infrastructure. The state must manage demand as well as increase supply strategically. Demand-management of infrastructure use, such as, conservation measures and year-round schooling will have the quickest impact and lowest capital outlays.<sup>11</sup> The Business, Transportation and Housing Agency or its successor will need to develop strategic plans, funding priorities, and performance measures that not only look at the provision of new infrastructure and maintenance, but how to use existing infrastructure in the most efficient ways possible.

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**Example:** Steve Heminger, the Executive Director of the Metropolitan Transportation Commission, is pursuing the conversion of the Bay Area's High Occupancy Vehicle lanes to High Occupancy Toll (HOT) lanes that would still allow free access to carpools and buses, but would require other motorists pay to use the lane for a quicker commute. The new toll revenues could be used to construct new HOT lanes and operate express buses and rideshare services.

### ***Recommendations***

California's population continues to grow and the increasing need for electricity, water service, housing and transportation facilities require that California take timely action to provide and maintain viable infrastructure. Accomplishing this goal can be done by undertaking the following:

- A. The Business, Transportation and Housing Agency or its successor should propose legislation to form an Office of Infrastructure Planning, Programming and Evaluation (OPPE). The Office would provide the planning, budgetary, performance evaluation functions necessary to support coordinated statewide infrastructure planning and programming. The staff would be comprised of planning, programming and evaluation representatives from existing infrastructure agencies and departments.**
- B. The OPPE should establish coordinated infrastructure policies, projects and budgets that are consistent with the priorities adopted by the Business, Transportation and Housing Agency or successor entity, by June 2006.**
- C. The OPPE should complete an inventory of current infrastructure facilities statewide by December 2005 that assesses its condition and determines the costs necessary to repair these assets to levels of performance that meet federal, state and community standards by June 2006. It should provide the necessary data for the Homeland Security Inventory when requested.**
- D. The OPPE should coordinate state planning and programming functions to develop a prioritized, performance-driven statewide infrastructure plan by June 2006 linked to funding incentives.**
  - a. The Business, Transportation and Housing Agency or successor entity should adopt a long range infrastructure capital, operation and maintenance plan and a seven-year financial program that reflects life cycle needs by November 2006.
  - b. The OPPE on an on-going basis should assess demand management and conservation measures prior to investment in new infrastructure.
  - c. The Business, Transportation and Housing Agency or its successor departments should, prior to building new infrastructure facilities and systems, plan and program for the long-term cost of maintaining them.



- d. The OPPE will link new funding initiatives for infrastructure, including bond acts, to priorities as adopted by the Business, Transportation and Housing Agency or its successor.
- E. The OPPE should provide a framework and incentives for local governments to engage in regional planning and comply with State General Plan Guidelines as adopted by the Business, Transportation and Housing Agency or its successor.**
  - a. The Business, Transportation and Housing Agency or its successor should require the certification of General Plans by the Infrastructure Secretary on a five-year basis, starting in January 2006. Review and certification of the General Plans would ensure that cities and counties are planning congruent with state policy on infrastructure development. Local governments which do not receive state approval of their General Plans should not have the same priority for funding as those whose General Plans have been certified.
  - b. The OPPE will provide guidance to local agencies to participate in the development of the State Hazard Mitigation Plan (federal requirement—timeline specified by federal government) through their General Plan process to ensure citizens, infrastructure investments and federal revenues are protected.
  - c. On a day-to-day basis, the Business, Transportation and Housing Agency or its successor departments will offer technical support and tools to help communities undertake better infrastructure planning and update General Plans.
  - d. The OPPE in partnership with other state and local agencies should develop pilot collaborative, integrated regional and sub-regional planning initiatives linked to planning criteria developed by the Business, Transportation and Housing Agency or its successor.
- F. On a regular basis, the OPPE should work in partnership with state resource, conservation and public safety agencies to ensure that their statewide planning and funding documents are integrated and infrastructure is provided in a timely and cost effective manner.**

### ***Fiscal Impact***

As mentioned, the State Commission on Building for the 21<sup>st</sup> Century Report noted that there will be a need for about \$100 billion in infrastructure improvements during the next decade. If California could save even a small percentage of this through a more consolidated infrastructure planning and programming process, the savings would fund many desperately needed projects. Using improved information, coordination and a more informed budget process to prioritize funding for infrastructure projects, maintenance, and operations will result in more effective program delivery, resulting in more projects funded in a shorter period of time.



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Creation of a state infrastructure planning office will also generate fiscal savings through efficiencies gained by the elimination or consolidation of existing boards, board staff and functions.<sup>12</sup> The Governor's Office of Planning and Research, California Transportation Commission, Caltrans, High-Speed Rail Authority, California Energy Commission, California Public Utilities Commission, Department of Housing and Community Development and Department of Water Resources were surveyed to determine program funding levels and number of positions that perform the infrastructure planning, programming and evaluation functions within their respective agencies.

With the consolidation of the administrative functions, it is estimated that there will be a 15 percent savings in the administrative costs of these programs. This equates to a reduction of seven PYs and \$581,000.<sup>13</sup>

Much of this funding is earmarked from federal or special sources and would not be lost to the state.

**Federal and Special Funds**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	\$0	\$0	0
2005–06	\$581	\$0	\$581	(7)
2006–07	\$581	\$0	\$581	(7)
2007–08	\$581	\$0	\$581	(7)
2008–09	\$581	\$0	\$581	(7)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

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## Endnotes

- <sup>1</sup> California Commission on Building for the 21<sup>st</sup> Century, "Invest for California" (Sacramento, California, September 2001), pp. 1–10.
- <sup>2</sup> Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," by David E. Dowall and Jan Whittington (San Francisco, California March, 2003), p. v-xiii.
- <sup>3</sup> Department of Finance, "California's Five Year Infrastructure Report" (Sacramento, California, 2002), pp. 7–9.
- <sup>4</sup> Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," pp. 61–94.
- <sup>5</sup> California Commission on Building for the 21<sup>st</sup> Century, "Invest for California" (Sacramento, California, September 2001).



- <sup>6</sup> *Speakers Commission on Regionalism, "The New California Dream—Regional Solutions for 21<sup>st</sup> Century Challenges" (Sacramento, California, January 13, 2002), pp. 66–68.*
- <sup>7</sup> *Interview with Patty Dunn, director, Community Development and assistant city manager; John Sprague, director, Economic and Community Services and assistant city manager; and Rob Jensen, project engineer, director, Public Works and city engineer for the city of Roseville, Roseville, California (March 17, 2004).*
- <sup>8</sup> *University of California, Berkeley, Department of City and Regional Planning, "Opening the Doors to Infill Housing," by John Landis, chair, Sacramento, California, May 11, 2004.*
- <sup>9</sup> *Governor's Office of Planning and Research, "Environmental Goals and Policies Report" (November 2003), pp. 79–83.*
- <sup>10</sup> *Maryland Office of Planning, "Managing Maryland's Growth—Smart Growth: Designating Priority Funding Areas" (Maryland, November 1, 1997), pp. 3–7.*
- <sup>11</sup> *Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," pp. 115–135.*
- <sup>12</sup> *Reason Public Policy Institute and the Performance Institute, "Streamline and Reorganize State Government through Consolidation and E-Government" (Los Angeles, California, 2003), p. 42.*
- <sup>13</sup> *Executive Office of the Budget; Office of Management and Budget, Circular No. A-76 (revised) (Washington, D.C., May 29, 2003); New South Wales Government in Australia, "Shared Corporate Services," <http://www.oict.nsw.gov.au/content/3.6.scs.asp> (last visited June 14, 2004); and Reason Public Policy Institute and the Performance Institute, *Streamline and Reorganize State Government through Consolidation and E-Government* (Los Angeles, California, 2003), p. 42.*





# Better Management Needed For California's Real Estate Assets

## **Summary**

Fragmented, inadequate and inconsistent real estate asset and property management prevents the efficient and effective use of the state's real property. The state should create a public corporation to better manage its real estate asset and property management needs.

## **Background**

The state owns and leases real property worth billions of dollars that is used for diverse public purposes, such as office buildings, educational facilities, correctional facilities, public parks and open space, waterways, roads and maintenance facilities, hospitals and developmental disability centers.

The Legislature, through various state laws and the annual budget process, controls funding allocation for the state's infrastructure. The State Public Works Board (PWB), created by the Legislature in 1946, ensures that legislative intent is carried out. PWB's primary functions are to: Provide a review and approval process for adherence to the Legislature's intent in its appropriation of funds for capital outlay projects; carry out various statutory control provisions relating to capital outlay projects; select and acquire real property for location or expansion of state facilities; approve sales of surplus property pursuant to annual statutes authorizing the disposal of surplus real property; and acquire property and construct facilities from the proceeds of revenue bonds issued by the board.<sup>1</sup>

The Department of Finance Capital Outlay unit administers the functions of PWB and provides whatever assistance the board may require. The Department of General Services (DGS) provides staff support for real property acquisitions and sales. PWB and legislative oversight is focused on new acquisitions, new construction and surplus property sales. Real estate asset and property management are the responsibility of each agency.

The Commission on California State Government Organization and Economy, also known as the Little Hoover Commission, has for years been publishing findings critical of the state's asset and property management practices. To quote Chairman Nathan Shappell in a March 1986 report entitled *California State Government's Management of Real Property*:

"Overall the commission concluded that the state's management of property is accountable to no one and is out of control. Unlike the private sector, property management in state government is neither strategic nor systematic and lacks any incentives to efficiently and effectively manage these extremely valuable assets."<sup>2</sup>

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In a subsequent report in March 1990 entitled *Real Property Management in California: Moving Beyond the Role of Caretaker*, Chairman Shappell said,

“In a time of shrinking resources and mushrooming demands for service, it is crucial that the State of California put its assets to work to maximize the potential benefits for all citizens. Yet repeatedly over the last five years the Little Hoover Commission has found that the state has displayed an appalling ignorance about its own holdings and has taken an inexplicable lackadaisical approach to managing its real property.”<sup>3</sup>

More recently, Little Hoover Commission Chairman Richard R. Terzian wrote in a December 1995 report entitled *California Real Property Management: A Cornerstone for Structural Reform*:

“Over the last decade the Little Hoover Commission has advocated repeatedly that the state reform its management of real property. Sincere attempts have been made to make the current system function better, but those efforts have failed. The consequences include higher state costs and lost revenue.”<sup>4</sup>

Not only do these three reports catalogue in detail the many problems with the state’s asset management processes, they also offer over forty recommendations for improvement. Except for beginning a statewide real property inventory database in 1990 (which is still incomplete in 2004) and the consolidated annual five year infrastructure planning process in 2002, none of the other recommendations made in these Little Hoover Commission reports have been implemented and little progress toward effective real property asset management has been made.

The California Five-Year Infrastructure Plan came about from a Little Hoover Commission recommendation to enact legislation requiring each state agency to submit to PWB a capital outlay plan for the next five years. Before 2002, state infrastructure planning was carried out by individual departments. This fragmented planning effort included development of various documents, including departmental strategic plans, state transportation plans, water resources planning, and higher education planning. The information was not consolidated into a statewide plan; however, beginning in 2002, Government Code Sections 13100–13104 required the Department of Finance to prepare an annual statewide consolidated five year capital outlay plan to consolidate all agencies infrastructure planning.

This planning effort is a step toward consolidated planning, but asset and property management is still focused at the agency level and continues to be an ongoing problem. The three Little Hoover Commission reports mentioned previously have repeatedly recommended that the state adopt centralized asset and property management.<sup>5</sup> In its 1995 report the Little Hoover Commission took the additional step of recommending that the state’s long term solution to its asset and property management problems is to enact legislation to create a



public corporation similar to the British Columbia Buildings Corporation with responsibility for all aspects of state real property asset and property management. According to the report, the corporation should be financially independent and fee-based. It should be governed by a board appointed by the Governor and the Legislature and could include constitutional officers like the Treasurer and the Controller. It should be free to hire employees outside the civil service system, enter into contracts without approval from control agencies including the State Personnel Board and the Department of General Services, and to issue revenue bonds and secure private financing.<sup>6</sup>

In his May 10, 2004, executive order, Governor Schwarzenegger stated: "This disjointed system of real property asset management is deficient because it:

- hinders statewide strategic planning; inhibits the use of a consistent approach to determine whether the acquisition of a real property asset has a clearly identifiable public purpose and benefit;
- inhibits the use of a consistent approach to determine whether the utilization of a real property asset meets state programmatic needs;
- inhibits efforts to set coordinated statewide priorities for spending on real property assets;
- leads to inconsistent and inequitable operational costs paid from departmental budgets for the use of real property assets;
- allows some decisions to escape proper due diligence reviews and thereby increases the risk that the state will acquire low priority properties or properties with undiscovered costs and liabilities;
- leads to inconsistent state policies in dealing with the public and other governments in real estate transactions; and
- contributes to an inefficient use of resources to manage, maintain and govern California's real property assets; and has prevented the creation of a single system for accurately listing and tracking all of California's assets."<sup>7</sup>

According to the National Performance Review, all high-performance organizations, whether public or private are and must be interested in developing effective performance measurement and performance management systems, since it is only through such systems that they can remain high performance organizations.<sup>8</sup>

In California, there are no statewide performance benchmarks used to measure the state's levels of utilization of its existing real property and the state's costs in acquiring, building, maintaining, leasing and selling its real property. For office building operating costs this information is readily available. The Building Owners and Managers Association's (BOMA) annual Experience Exchange Report publishes the results of surveys of operating expenses and office space utilization rates per employee for more than five thousand office buildings and almost one billion square feet nationwide.<sup>9</sup> Detailed survey results are categorized by city,

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downtown or suburban location, and building size for both public and privately owned office buildings. Performance benchmarks like the BOMA Experience Exchange Report are available and can be used to set the standards for improvement so that management can systematically manage against these benchmarks to increase space occupancy rates and reduce costs.

In a November 2003 report entitled *Higher Education: Flexible Facility Utilization Standards*, the Legislative Analyst's Office determined that an appropriate benchmark for classroom usage for the state's higher education system is 1,820 hours of workstation use per year. For teaching laboratories an appropriate benchmark is 1,040 hours of station use per year.

Current utilization rates at the state's colleges and universities, however, range between 72 and 85 percent. In the CSU and UC systems alone, this means that more than 100,000 additional students could be accommodated each year between the two systems. This is about the equivalent of the University of California's three largest campuses: Los Angeles, Berkeley and Davis. Assuming the 108 community colleges could perform to this same benchmark, more than 300,000 additional students can be accommodated each year, or more than twice the instructional capacity of the ten campuses in the Los Angeles Community College District.<sup>10</sup>

In March 1986, the Little Hoover Commission recommended that the state create a central automated inventory of state owned and leased real property and that included the following data:

- building address or land parcel location;
- gross and net square feet per building and acres per land parcel;
- type of structures and land use;
- tenant and use;
- terms of tenancy;
- annual operating and capital costs; and
- appraised value.

All state departments and agencies should have access to the inventory.<sup>11</sup> In 1986 and 1987, legislation was enacted requiring DGS to create a statewide property inventory (SPI).<sup>12</sup> The database became operational in May of 1990.<sup>13</sup>

Fourteen years after its creation, SPI still does not include all of the properties required by statute. For example, the Department of Parks and Recreation and the Department of Water Resources were unable to provide an accurate accounting of their structures when DGS created the inventory. These agencies have yet to provide accurate structure records. According to DGS staff, the University of California (UC) has not reported information to the inventory since the data were initially entered into the system in 1988.<sup>14</sup> The acreage shown in SPI is about half of what the state owns. SPI reports about 2.5 million acres, but not included in this total is State Lands Commission sovereign lands of about 4 million acres.<sup>15</sup> Also not included in SPI are





Department of Transportation (Caltrans) properties held for roadways. Caltrans maintains four separate databases for this purpose, but according to a 2001 State Auditor report, three of the four databases do not provide a correct record of its holdings.<sup>16</sup>

The original intent in creating a central inventory was to have a tool for the state to more effectively manage its assets. While better than what existed prior to its creation, SPI still falls short by that measure. SPI is used only by DGS and is not available to all state departments and agencies. It still does not contain the basic information needed to manage the state's property, including useful property management information such as the number of employees per square foot of office space, vacancy rates, operating expenses per square foot, and the current value of the properties.

### **Recommendations**

- A. The Governor should work with the Legislature to create a public corporation with responsibility for infrastructure planning, capital budgeting, fiscal controls, asset management, acquisitions, construction, maintenance, and sales.**

The corporation should be financially independent and fee-based. The legislation should authorize the corporation to enter public-private partnerships, issue tax exempt bonds and secure private financing. It should be free to hire employees outside the civil service system, and enter into contracts without approval from control agencies such as the State Personnel Board and the Department of General Services. The public corporation should evaluate the electronic real estate database management technology available from the private sector and compare these alternatives to the costs and benefits of enhancing the statewide property inventory.

- B. The Governor should require every state agency to establish meaningful performance measures tied to its strategic objectives for its real property assets.**

These measures, and each agency's performance in comparison to them, should be published widely in the California Five Year Infrastructure Plan and the Governor's Budget. This baseline data should be used to compare state departments to one another and to best practices in other states and the private sector.

### **Fiscal Impact**

Proposed legislation to create a public corporation with responsibility for the state's real estate assets and property management should lead to savings and improved services. However, based on the size of the state's real property inventory and the scope of the recommendations, the potential savings and/or costs of implementing this recommendation cannot be estimated. Any minor costs associated with the proposal for agencies to establish meaningful performance measures tied to strategic objectives can be funded from existing budgets.

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## Endnotes

- <sup>1</sup> PWB selects and acquires real property for state departments when funds are appropriated by the Legislature, except for acquisitions for the following entities: Department of Water Resources; the State Reclamation Board; the Wildlife Conservation Board; the Department of Transportation; the Public Employees Retirement System; the Department of Fish and Game; the State Teachers' Retirement System; the Department of Housing and Community Development; and the State Lands Commission.
- In addition, PWB approval processes for real property transactions do not apply to projects for the University of California and the California State University which are not funded through state appropriations. (Limited exemptions for the state conservancies have been authorized in statute.) PWB has eminent domain (condemnation) authority as described in Section 6866. Pursuant to Government Code Section 15855 (b), the board is the only state agency that may exercise this authority, with the exception of the following entities: the Department of Transportation, the Department of Water Resources, the State Lands Commission, the State Reclamation Board, the Department of Fish and Game, Hastings College of the Law, and the University of California.
- Section 831.5 of the Government Code allows non-profit public land trusts to enter into agreements with the state to preserve open space and allow public access to natural resources and, in return, receive certain immunities from liability for injuries caused by natural conditions of unimproved property. The State Coastal Conservancy can enter into such agreements for projects in the Coastal Zone, and the Tahoe Conservancy can enter into agreements in the Tahoe Basin. DGS sponsors an annual bill to authorize disposition of excess state-owned real property (Government Code Section 11011). The legislation typically provides that PWB approves final disposition. However, DGS does not handle the sale of property for the Department of Transportation and the Department of Water Resources, or for properties of the University of California, the California State University or the California Community Colleges acquired through non-state funds.
- <sup>2</sup> Commission on California State Government Organization and Economy, "California State Government's Management of Real Property" (Sacramento, California, March 1986), p. 1.
- <sup>3</sup> Commission on California State Government Organization and Economy, "Real Property Management in California: Moving Beyond the Role of Caretaker" (Sacramento, California, October 1990), p. 1.
- <sup>4</sup> Commission on California State Government Organization and Economy, "California's Real Property Management: A Cornerstone for Structural Reform" (Sacramento, California, December 1995), p. 1.
- <sup>5</sup> Commission on California State Government Organization and Economy, "California State Government's Management of Real Property," pp. 50–52, Commission on California State Government Organization and Economy, "Real Property Management in California: Moving Beyond the Role of Caretaker," pp. 13–28, and Commission on California State Government Organization and Economy, "California's Real Property Management: A Cornerstone for Structural Reform," pp. 9–10.
- <sup>6</sup> Commission on California State Government Organization and Economy, "California's Real Property Management: A Cornerstone for Structural Reform," pp. 9–10.
- <sup>7</sup> California Office of the Governor, "Executive Order S-10-04" (Sacramento, California, May 10, 2004).
- <sup>8</sup> National Performance Review, "Serving the American Public: Best practices in Performance Measurement" (Washington, DC, June 1997), p. 2.
- <sup>9</sup> 2000 Building Owners and Managers Association International, "BOMA Experience Exchange Report, Operating a Cost-Effective Office Building Your Guide to Income and Expense Data" (Washington, DC, 2000), p. 1.



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- <sup>10</sup> Legislative Analyst Office, "Higher Education Flexible Facility Utilization Standards" (Sacramento, California, November 2003), pp. 11–12.
- <sup>11</sup> Commission on California State Government Organization and Economy, "California State Government's Management of Real Property," pp. 55–56.
- <sup>12</sup> Assembly Bill 3932 (Chapter 907, Statutes of 1986), Sacramento, California; and Assembly Bill 142 (Chapter 638 Statutes of 1987), Sacramento, California.
- <sup>13</sup> Commission on California State Government Organization and Economy, "Real Property Management in California: Moving Beyond the Role of Caretaker," pp. 37–43.
- <sup>14</sup> California State Auditor, "The State's Real Property Assets: The State Has Identified Surplus Real Property, but Some of Its Property Management Processes are Ineffective" (Sacramento, California, January 2001), pp. 49–58.
- <sup>15</sup> Department of General Services, "Statewide Property Inventory," <http://www.documents.dgs.ca.gov/RESID/Inventory/StateOwned.xls> (last visited June 16, 2004); and interview with Paul Thayer, executive director, California State Lands Commission, Sacramento, California (March 5, 2004).
- <sup>16</sup> California State Auditor, "The State's Real Property Assets: The State Has Identified Surplus Real Property, but Some of Its Property Management Processes are Ineffective," pp. 54–55.





# Deteriorating Highway Quality is Costly for Taxpayers

## **Issue**

California's transportation infrastructure is decaying nearly as quickly as the state's population is growing. Finite transportation resources have been increasingly directed to developing additional highway capacity, while available resources for protecting existing infrastructure have declined.

## **Background**

Many of California's freeways were constructed in the 1960s. Since then, traffic has grown tremendously. Vehicle travel on America's highways has increased 157 percent from 1970 to 2002, and 33 percent from 1990 to 2002.<sup>1</sup> Statistics published annually by Federal Highway Administration (FHWA) show that California's roadway system, including interstate highways, state highways, and major arterial streets and roads, is the second roughest in the nation, with more than 26 percent of those roads rated by drivers as unacceptably rough.<sup>2</sup> This poor quality directly affects motorists. According to the Road Information Project, American motorists pay \$52 billion a year in extra vehicle repairs and operating costs, and \$230 billion a year for medical costs, lost productivity, travel delay, workplace costs, insurance costs, and legal costs stemming from motor vehicle accidents.<sup>3</sup>

The Legislature has recognized the importance of maintaining the state's highway infrastructure. The California Streets and Highways Code, Section 167(a), specifically calls for operation, maintenance, and rehabilitation of the state highway system as the highest priority expenditure of state transportation funds. The Department of Transportation (Caltrans) maintenance division is charged with performing preventive highway maintenance work, and the State Highway Operations and Protection Program (SHOPP) is designed to correct major highway issues through reconstruction or rehabilitation. Even with the established mandate, maintenance funding still loses to the higher-profile traffic capacity enhancement projects. According to the Legislative Analyst's Office, pavement maintenance expenditures dropped 39 percent between 1997 and 2001.<sup>4</sup> In this same period, the resources for project delivery increased from about 8,500 employees and a budget of about \$820 million, to more than 12,000 employees and a budget in excess of \$1.1 billion.

As new projects are developed and added to the existing inventory there is no methodology to consider, and account for, the lifecycle costs of this inventory. Without a true consideration of construction, preventive maintenance, rehabilitation, reconstruction, and other costs over the life of the inventory, it is easy to focus attention on development rather than on maintenance.

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Caltrans' own studies indicate that delaying preventive maintenance greatly increases costs. For example, as much as \$1 spent today on preventive maintenance for joint and crack sealing, or for surface seals, could save \$20 for reconstruction work in the future.<sup>5</sup>

In addition, SHOPP has not been fully funded. In 2002, Caltrans developed a SHOPP that, if fully funded, would have reduced the number of distressed lane miles on the highway system by half over a 10-year period. The plan would have cost about \$22 billion or about \$2.2 billion a year. The California Transportation Commission (CTC) chose not to fund SHOPP at that level. Average annual SHOPP funding is now projected to be under funded at \$1.65 billion for the next five years.<sup>6</sup>

Caltrans regularly reports on the status and successes of its delivery of capital improvement projects, including the number of projects, amount of dollars spent and support costs as a percentage of total costs. However, performance indicators for the quality of Caltrans facilities are lacking. In fact, in a nationwide compilation of performance measures conducted by the Missouri Department of Transportation, Caltrans had not listed any externally reported performance measures that would indicate the overall quality of the highway system.<sup>7</sup> However, Caltrans has developed "level of service" indicators that are available for virtually all elements within the highway project environment. Determining the level of service is an excellent starting point to begin evaluating the impact of resource and maintenance technique decisions. Caltrans issued a report in 2004 which attempted to tie resource decisions to performance outcomes such as miles of distressed pavements that, over time, should help decision-makers.<sup>8</sup>

As projects are completed, it should be safe to assume that the project will perform as planned for some time before preventive or corrective maintenance is required, however, situations arise requiring Caltrans maintenance staff to respond to areas that have recently completed projects. Examples include newly constructed pavement failing prematurely, or recently completed slopes eroding after the first rainfall. These situations require Caltrans maintenance staff to take immediate corrective action.<sup>9</sup> This unplanned workload prevents Caltrans from continuing with its planned activities. Many states have moved to construction specifications or contracts that carry a warranty, or require the private contractor to maintain the facility for a specified amount of time.

Caltrans is responsible for maintaining more than 50,000 lane miles of roadway; 12,000 bridges; 250,000 acres of roadside including 25,000 landscaped acres; 88 roadside rest stops; 350 vista points; 340 park-and-ride lots; 310 pumping plants; and more than 400 maintenance yards with a fleet of more than 14,000 pieces of equipment. Approximately 5,000 field personnel perform nearly all required activities. In addition, Caltrans' workload has been further increased—with no additional staff—by rapidly changing priorities such as storm water treatment, and graffiti and litter removal.



Authority to contract for highway maintenance exists under Government Code Section 19130. Caltrans has contracted with the private sector for a very limited portion of this workload, but due to employee union pressures, was forced to severely limit the amount of contracted work. Other states have recognized the benefits of contracting workload to private entities to keep up with demands. Texas has about 1,400 contracts providing about 54 percent of all maintenance.<sup>10</sup> Still other states cite a variety of reasons they consider outsourcing maintenance activities including the following:

- Achieving cost savings (e.g., Florida's initiatives achieved between 15 and 20 percent savings);
- Spurring innovation;
- Achieving higher quality;
- Gaining expertise; and
- Improving efficiency, increasing flexibility, and better managing risks.<sup>11</sup>

In other states, maintenance outsourcing has been achieved by using a variety of contract types. These include contracts for a very narrow scope such as lawn mowing, as well as comprehensive contracts for "total maintenance" of a given highway corridor. In the total maintenance contracts, payment is based upon achieving performance measures.<sup>12</sup>

Caltrans maintains 88 roadside rest stop areas across the state at an annual cost of more than \$12 million. Caltrans' previous attempts to privatize the maintenance of these rest areas has been unsuccessful due primarily to opposition from the Department of Rehabilitation, which is interested in maintaining opportunities for blind entrepreneurs. In addition, federal regulations prohibit commercial activities on an interstate or other highways that receive federal funding. Other states recognized the potential of privatizing these facilities and have lobbied the federal government to abolish this constraint. The current version of the Highway Authorization Bill contains a provision providing for a pilot program to commercialize roadside rest areas.

The responsibilities for maintaining infrastructure are scattered throughout a variety of agencies and departments in state government. While the roads, buildings, bridges, or canals being maintained may differ, many of the issues described above have applicability. In addition, the equipment, materials, skill sets, and support facilities are all similar. For example, Interstate 5 runs parallel with the California State Aqueduct for a considerable distance through the Sacramento Valley. There may be an opportunity for Caltrans and the Department of Water Resources to share equipment, storage and yard facilities, materials, and staff to maintain these assets. Economies of scale and avoiding duplication of equipment and facility costs could produce a significant savings for the state.



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## **Recommendations**

- A. The Governor should direct the Business, Transportation and Housing Agency, or its successor, to propose amendments to the State Transportation Improvement Program (STIP) guidelines for adoption by the California Transportation Commission (CTC), or its successor, to require that all projects identify full lifecycle costs.**

The lifecycle cost information will be a valuable tool. The cost information can be used in choosing project designs that consider the longer-term implications by considering cost and benefits. The information can also be used to establish a baseline of the resources required for maintenance of the state's highway system.

- B. The Department of Transportation, or its successor, should establish Performance Measures that indicate the overall quality of the highway system. These measures will be reported semi-annually to the CTC.**

As defined in statute, maintaining the State Highway System is the highest priority for State Highway Account resources. Even with the pressures for additional capacity, this existing infrastructure must be protected. Performance measures should demonstrate how resource decisions impact the overall condition of the highway system. Measures should include such factors as the number of distressed lane miles, bridge condition, and lifecycle costs. Measures that could be transferred from other states should be utilized as much as possible.

- C. The Business, Transportation and Housing Agency, or its successor, should develop a pilot program to evaluate the effectiveness of outsourcing highway and related facility maintenance.**

Authority to contract for highway maintenance exists under Government Code 19130. The pilot program should include at least 10 percent of the lane miles of state highways, and include all highway types including rural, urban, and multi-lane highways. Contracts should be developed paying careful consideration to best practices cited by other states and countries, as well as clear and distinct performance measures. These contracts should be for specific aspects of maintenance such as lawn mowing or graffiti removal, as well as for complete maintenance of a given highway segment. Model contracts from Texas or Virginia should be emulated.<sup>13</sup>

- D. The Governor should seek opportunities to partner with other states, and work with the California Congressional Delegation to support the reauthorization language that allows for privatizing roadside rest areas.**

To completely privatize roadside rest areas, federal requirements must be changed to allow for this. Other states, including Florida and Texas, have begun petitioning for a



similar change, and the federal transportation reauthorization contains a provision for roadside rest privatization. The opportunity exists to contract the operation and maintenance of these facilities to a vendor who may be given the rights to operate a commercial facility within the area. Operators could bid for these rights, which could create a potential revenue source for the Department of Transportation or its successor entity.

- E. The Business, Transportation and Housing Agency, or its successor, the Resources Agency, or its successor, and the State and Consumer Services Agency, or its successor, should jointly analyze various maintenance functions and determine if there are opportunities to consolidate or share facilities, equipment and resources. As these opportunities are discovered, detailed agreements outlining roles and responsibilities should be developed, and implemented.**

### ***Fiscal Impact***

The necessary highway maintenance cost for protecting and rehabilitating existing infrastructure is unknown. The proposed recommendations will determine the cost. Additional maintenance spending will require a corresponding decrease in available funding for capacity enhancement projects.

Savings could result from the current version of the Highway Authorization Bill which contains a provision providing for a pilot program to commercialize roadside rest areas. If this is signed into law, privatization of the roadside rest stops could save up to \$10 million per year. This figure assumes that all sites will be privatized. It will require contract management and oversight costing an estimated 10 percent of the current cost of \$12 million per year.<sup>14</sup> Estimated savings also account for any continuing maintenance that the state will be responsible for.

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### **Endnotes**

<sup>1</sup> The Road Information Project, "Road Information Project (TRIP) Fact Sheet," Washington, D.C., February 2004.

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<sup>5</sup> California Department of Transportation, "Pavement Performance Chart," Sacramento, California, Spring 2004.

<sup>6</sup> Legislative Analyst's Office, "Analysis of the 2004–05 Budget Bill."

<sup>7</sup> Missouri Department of Transportation, "A Comparison of State Transportation Departments—MoDOT Strategic Planning" (Jefferson, Missouri, March 15, 2004).

<sup>8</sup> California Department of Transportation, "2004 SHOPP State Highway Operation and Protection Program 2004/05 through 2007/08" (Sacramento, California, April 2004).

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- <sup>9</sup> Interview with Randell Iwasaki, deputy director, Operations and Maintenance, California Department of Transportation, Sacramento California (April 23, 2004).
- <sup>10</sup> Texas Comptroller of Public Accounts, "Paving the Way: A Review of the Texas Department of Transportation," "Open More Roadway Maintenance to Competition" (Austin, Texas, January 2001), <http://www.window.state.tx.us/txdot/txdot407.html> (last visited June 15, 2004).
- <sup>11</sup> Reason Public Policy Institute, "Contracting for Road and Highway Maintenance," by Geoffrey F. Segal, Adrian T. Moore, and Samuel McCarthy (Los Angeles, California, March 2003).
- <sup>12</sup> Texas Comptroller of Public Accounts, "Paving the Way: A Review of the Texas Department of Transportation," "Open More Roadway Maintenance to Competition."
- <sup>13</sup> National Partnership for Highway Quality, 2000 Gold Award National Quality Initiative for "The Total Maintenance and Operations Contracts," September 2000.
- <sup>14</sup> Interview with Randell Iwasaki.



# Supply of Affordable Multi-Family Housing is Inadequate

## **Summary**

Building affordable multi-family housing is more difficult and expensive than building market rate housing due to high home prices, governmental regulations, “Not In My Backyard” (NIMBY) attitudes, and local zoning restraints.<sup>1</sup> The state should take steps to address these issues to increase the supply of affordable multi-family housing to allow more people to afford homes.

## **Background**

### ***Housing demand and prices***

California is home to a growing population of more than 36 million residents, or approximately 13 percent of the nation’s population. During the 1990s, California’s population increased by 4.4 percent, but the supply of housing rose by only 1.6 percent.<sup>2</sup> California’s homeownership rate, at 55 percent versus 67 percent nationally, is the lowest in the United States.<sup>3</sup>

For each decade during the period from 1960 to 1990, the ratio of multi-family construction to single family construction was nearly 2:1. From 1990 to 2000, construction of multi-family housing stalled, dropping that ratio to approximately 1.4:1.<sup>4</sup> According to the California Association of Realtors, the median home price in California in March 2004 was \$428,000, compared with \$174,000 nationally, indicating that only 21 percent of Californians can afford to purchase a median priced home.<sup>5</sup>

Estimates for the future are equally discouraging. The Department of Housing and Community Development (HCD) develops a statewide housing plan that takes a county-by-county look at California’s projected housing needs through the year 2020.<sup>6</sup> Projections indicate that by 2020, California will likely add 12.5 million new residents, which will require building approximately 220,000 housing units annually to meet the state goal.<sup>7</sup> However, even in the “boom” year of 2000, only 150,000 units were constructed, approximately 32 percent shy of the state goal.<sup>8</sup> With regard to affordable housing in particular, HCD projects an unmet need of 3.7 million low-income units by 2020.<sup>9</sup>

The continuation of current trends will lead to an underproduction of needed housing by about 60 percent, creating a further upward spiral of home prices and rents as well as lower homeownership rates and affordability.<sup>10</sup> Condominiums, duplexes and other multi-family units are generally more affordable than single family detached units, costing typically

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25 to 30 percent less, although recent heavy demand for such housing is closing the gap.<sup>11</sup> Multi-family units usually represent the most affordable housing segment available and increasing the supply of these units will allow greater numbers of Californians to afford homes and reduce the impacts on the environment and infrastructure.

***Red tape further exacerbates the problem***

Exacerbating the multi-family housing shortage is the lack of a single state entity to provide housing, infrastructure and services for this growing population while also maintaining the state's high quality of life and environmental priorities.<sup>12</sup> Government regulations play a large role in increasing the cost of building affordable housing. Second only to the cost of land, the largest single component in the cost of building a new home is government regulation.<sup>13</sup> Based on an average sales price of a \$371,339 home in Carlsbad, California (Market Profiles, 1998), \$96,000 is the average financial impact on a single family detached house due to government regulations.<sup>14</sup>

There are currently four separate state entities involved in subsidizing and/or regulating multi-family housing: the Department of Housing and Community Development, California Housing Finance Agency, Tax Credit Allocation Committee and the California Debt Limit Allocation Committee. These agencies administer more than 30 separate programs, both federal and state, each with its separate application process and requirements. This increases the cost of such subsidies and thereby reduces the number of units actually constructed. Several other states, including Washington, Massachusetts and Michigan have consolidated these functions into one or two agencies and have introduced a single, comprehensive application for all of their subsidy programs.<sup>15</sup>

California law requires cities and counties to adopt a comprehensive, long-term plan for the physical development of the city, city and county, or county. This plan is known as the General Plan. The "housing element" is one of the seven elements of the General Plan and the only element mandated and reviewed by the state.<sup>16</sup> The state must reimburse local governments for their costs of implementing the "housing element" because it is a mandate. The housing element process is based on a top-down planning process where the state develops housing need numbers and disperses them down to local governments through the regions.

Housing elements in and of themselves rarely impact the amount of new housing built because in a market economy, private developers (or nonprofit builders of affordable housing) construct nearly all new housing units.<sup>17</sup> The state-mandated review of housing elements is expensive and ineffective. For example, some jurisdictions that obtained approval from HCD sought very little in reimbursements from the state, while others submitted sizable claims but never obtained state approval.



Despite the legal requirement of having a housing element approved by HCD, less than 60 percent of local governments currently meet this obligation.<sup>18</sup> The current process has few incentives to encourage local government compliance and accountability. In addition, little follow-up is made to ensure that plans are followed and affordable housing is actually built.

### ***Local barriers to affordable housing***

Local growth controls are also partly responsible for the shortage of affordable housing in California. Lack of enthusiasm for housing in cities, and in some cases outright hostility to multi-family or affordable housing, goes a long way toward explaining the state's lagging housing production.<sup>19</sup>

Another large obstacle on the local front is the NIMBY attitude. NIMBYism will always be an obstacle to building multi-family housing so long as people believe multi-family housing is a threat to their property values and quality of life. The California Environmental Quality Act (CEQA) is often used by neighborhood groups to block multi-family housing projects.

CEQA sets forth the statutory requirements for the state's environmental review process. CEQA requires all public agencies to inform decision-makers and the public of potential significant environmental impacts of proposed projects.<sup>20</sup> According to John Landis, Chair of the Department of City and Regional Planning at the University of California at Berkeley, developers view CEQA as a barrier that adds time, cost and uncertainty to mixed-use development projects.<sup>21</sup> The environmental review process opens projects to legal challenge.

Redevelopment agencies are another form of local government, consuming 10 percent of all property taxes statewide, or \$2.8 billion in Fiscal Year 2002–2003.<sup>22</sup> By state law, redevelopment agencies must spend 20 percent of their budgets on housing. This housing set-aside fund was intended to improve the quality and expand the supply of low-cost housing. Despite the 20 percent requirement, however, a report from the State Controller's Office shows that barely 3 percent was spent on low and moderate income housing in FY 2002–2003.<sup>23</sup>

### ***New models for multi-family housing***

New models for encouraging investment in both affordable and market rate multi-family housing are emerging in the real estate industry and capital markets nationwide. These include real estate investment trusts (REIT) and development trusts which finance, purchase and manage affordable housing properties. REITs are corporations that own and manage income-producing properties. Under a REIT, the state would purchase shares in a REIT using multi-family housing program dollars, which in turn would be invested by the REIT in a selection of multi-family housing properties. By blending market rate and affordable multi-



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family housing properties in the REIT portfolio, the state could achieve higher density development while receiving an estimated 5 to 7 percent annual return on its investment. A prominent example of such a REIT is the Community Development Trust based in New York, the primary goal of which is to preserve and increase the stock of affordable housing through long-term equity investments and mortgage lending. This privately held REIT invests in affordable housing in more than 20 states and has attracted such investors as Wells Fargo, Metropolitan Life Insurance, and Citigroup, who are currently receiving a yield of nearly 5 percent per annum.<sup>24</sup> Another REIT with a substantial investment in affordable and student housing is AIMCO. AIMCO is a publicly traded REIT operating in more than 40 states and has yielded an average of 7 percent annually since 1999.<sup>25</sup>

The benefits of such investment models are significant because they promote the creation of multi-family and higher density housing, thereby reinforcing the state's smart growth policies; invest in both market rate and affordable units while providing the state a substantial return on its multi-family housing investment; eliminate the need to administer a large number of individual affordable housing programs; and leverage private sector real estate expertise to the state's benefit.

### ***Recommendations***

- A. The Secretary of the Business, Transportation and Housing Agency, or its successor, should promote pilot projects like the San Diego Self-Certification Project which authorized local governments in San Diego County to self-certify their housing elements, without sending them to Department of Housing and Community Development, if they were approving housing in accordance with housing production goals that matched available resources.**

These housing production goals are established in conjunction with the council of government and HCD. The self-certification pilot program offers a creative solution of exempting local governments from state review and returning a measure of local control, in exchange for actual housing production. If such projects are successful, the Business, Transportation and Housing Agency or its successor should consider certifying general plans on a five-year basis.

- B. The Secretary of the Business, Transportation and Housing Agency or its successor should create a State Lending Task Force (similar to the effort led by the Massachusetts Department of Housing and Community Development) to coordinate and streamline the funding application process for state-offered housing subsidies.**

The goal of the State Lending Task Force would be to create a single application for housing subsidies that could be administered and approved electronically.





- C. The Secretary of the Business, Transportation and Housing Agency, or its successor, should divert \$10 million per year from the Tax Credit Allocation Fee Account to a new multi-family housing model such as a REIT.**

This will ensure a continuous stream of money for local governments that would allow them to build needed housing. The Secretary of the Business, Transportation and Housing Agency, or its successor, should have the ability to bond against this revenue stream.

- D. The Secretary of the Business, Transportation and Housing Agency, or its successor, should redirect \$200,000 from the Department of Housing and Community Development housing element savings to fund a six-month study to investigate and recommend the appropriate legal vehicle, composition, investment volume and establishment of a multi-family housing REIT or similar entity with the goal of investing in multi-family housing statewide for a reasonable rate of return.**

Oversight of this study should be performed by a temporary task force that focuses on leveraging existing public resources and programs as well as private sector models, capital and expertise. This study should be complete within six months and aim at establishing a REIT or something similar no later than July 1, 2005.

- E. The Governor should work with the Legislature to require redevelopment agencies to spend their 20 percent set-aside for affordable housing within three years or forfeit the money to a dedicated affordable housing fund managed by the Business, Transportation and Housing Agency, or its successor.**

### ***Fiscal Impact***

The minor costs associated with Recommendation A and B can be absorbed within existing budgeted resources. Recommendations C and E create funding for a \$50 million multi-family Real Estate Investment Trust (REIT). The \$50 million is comprised of \$10 million in annual funding from the unspent fund balance of the Tax Credit Allocation Fee Account, and \$40 million from the annual recapture of unspent redevelopment agency housing funds. The \$200,000 proposed by Recommendation D for the REIT study is funded by the savings in establishing the pilot self-certification of housing elements project.

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### **Endnotes**

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- <sup>4</sup> Daniel Carrigg, "Balancing Housing and Growth Pressures with Limited Resources: It's Time for Leadership," *Western City Magazine* (April 2002), p. 14.
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- <sup>8</sup> Daniel Carrigg, "Balancing Housing and Growth Pressures with Limited Resources: It's Time for Leadership," p. 15.
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- <sup>10</sup> Public Policy Institute of California, "California's Housing Element Law: The Issue of Local Noncompliance," by Paul G. Lewis (February 2003), p. v.
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- <sup>12</sup> Daniel Carrigg, "Balancing Housing and Growth Pressures with Limited Resources: It's Time for Leadership," p. 14; and interview with Daniel Carrigg, legislative representative, League of California Cities, Sacramento, California, March 30, 2004.
- <sup>13</sup> National Housing Conference, "Four Windows: A Metropolitan Perspective on Affordable Housing Policy in America, 2002" (Washington, D.C., March 2003), p. 6.
- <sup>14</sup> National Housing Conference, "Four Windows: A Metropolitan Perspective on Affordable Housing Policy in America, 2002," p. 6.
- <sup>15</sup> Interview with Joseph Flatley, president and chief executive officer, Massachusetts Housing Investment Corporation, Boston, Massachusetts (May 6, 2004).
- <sup>16</sup> Gov. C. Sections 65580–65589.8.
- <sup>17</sup> Public Policy Institute of California, "California's Housing Element Law: The Issue of Local Noncompliance," by Paul G. Lewis (February 2003), p. vi.
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- <sup>19</sup> Public Policy Institute of California, "Cities Under Pressure: Local Growth Controls and Residential Development Policy," by Paul Lewis and Max Neiman (January 2002), p. iii.
- <sup>20</sup> Pub. Res. C. Section 21000 et seq.
- <sup>21</sup> Presentation by John Landis, chair, Department of City and Regional Planning, University of California at Berkeley, "Opening the Doors to Infill Housing" (Sacramento, California, May 11, 2004).
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- <sup>23</sup> Interview with Bruce Witacker, executive assistant, Orange County Board of Supervisors, Santa Ana, California (June 18, 2004).



<sup>24</sup> *The Community Development Trust, Inc. and Subsidiaries, Independent Auditors' Report, "Consolidated Financial Statements, Years Ended December 31, 2002 and 2001," prepared by Deloitte & Touche LLP (March 31, 2003).*

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# Infrastructure Siting for Energy Facilities is Fractured and Inefficient

## **Summary**

Infrastructure siting for power plants in California is fractured and inefficient due to overlapping permitting authorities and lack of regulatory jurisdiction. The result has been delays in permitting for new electric power plants, transmission facilities, oil refineries and other much-needed energy infrastructure. Recent legislation proposed assigning electricity transmission and electric power generation facility siting responsibility to the California Energy Commission.

## **Background**

### **Power generation**

In the 1970s, the Legislature enacted the Warren-Alquist Act that gave the California Energy Commission (CEC) the “siting” or permitting authority for electric power projects that generate more than 50 megawatts of electricity.<sup>1</sup> Since 1999, the CEC has approved more than 18,000 megawatts of power generation.<sup>2</sup>

Several energy industry representatives commented favorably on the “one-stop-shop” permitting process. A smaller number indicated that the process could be streamlined, but also commented on its thoroughness, fairness and the predictability of the process.<sup>3</sup> One individual indicated that the only negative experience he could recall with the permitting process was attributable to local opposition, or what he described as the “Not-In-My-Backyard” syndrome. While some individuals expressed frustration with the process, most of the energy industry representatives surveyed expressed high regard for the power plant permitting process.<sup>4</sup>

The CEC siting process is certified by the California Resources Agency as being equivalent to the California Environmental Quality Act.<sup>5</sup> The CEC process is a systematic examination of the proposed project in 24 specific topic areas.<sup>6</sup> The standard licensing process is normally conducted within 12 months.<sup>7</sup> In order for CEC to approve the application, the Commission must make a legal finding of no significant environmental impact and find that the project would be in compliance with all local ordinances and regulations when built.<sup>8</sup>

Until recently, CEC did not charge applicants a fee for processing their applications even though processing costs sometimes ran into the millions of dollars. As a result of legislation, CEC now charges applicants processing and compliance fees. Those fees, however, fail to include all costs, which are borne by taxpayers through the CEC budget.

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In a 2003 report to the Legislature, in an argument favoring no fees, CEC said the following:

The Energy Commission believes that the current funding mechanism should remain intact, (i.e. no fees to applicants) that is, funding for the siting program should come from electricity ratepayers. The ratepayers are the key beneficiaries and should provide the funding for this program. The public's perception of the Energy Commission's independence and objectivity still remains a paramount concern.<sup>9</sup>

The Legislature disagreed with CEC and required the commission to impose a fee of \$100,000 plus \$250 per megawatt of capacity.<sup>10</sup> For an average-sized, 500 megawatt power plant, the resulting fee would be \$225,000, significantly lower than the average direct cost of \$665,000 reported by commission staff.

### ***Power transmission***

Power transmission line siting is the responsibility of the California Public Utilities Commission (PUC). This arrangement made sense before the passage of Assembly Bill (AB) 1890 when utilities were vertically integrated. Transmission and generation planning were performed simultaneously by utilities, and the PUC was responsible for making a determination of need and responsibility for administering the siting process. The Federal Energy Regulatory Commission (FERC) had jurisdiction over transmission rates.

After passage of AB 1890, when utilities were required to sell off most of the generation, planning for these activities was performed separately by a number of entities.<sup>11</sup> Utilities still own transmission facilities that are operated under the direction of the California Integrated System Operator. FERC has jurisdiction over transmission rates and the PUC has responsibility for making a determination of need and responsibility for administering the environmental impact assessment of the siting process.

The PUC determination of need analysis has not kept up with the market place and routinely underestimates benefits resulting from transmission additions or reinforcements.<sup>12</sup> For example, reinforcements by Pacific Gas and Electric to Path 15—a key stretch of power transmission lines in the Central Valley connecting Southern California to the northern part of the state—were repeatedly denied by the PUC because of faulty analysis on the PUC's part. The analysis only considered local utility benefits and did not include transmission system benefits.<sup>13</sup> Ironically, deficiencies in Path 15 were considered the direct cause for six blackouts in the San Francisco Bay Area during the energy crisis in 2000 and 2001.<sup>14</sup>

The PUC siting process consists of two separate phases: Needs Assessment and Environmental Analysis. These phases are usually conducted by the PUC in serial fashion. The Needs Assessment is performed in-house, but the Environmental Analysis is performed by outside consultants under the management of PUC Project Managers.<sup>15</sup> The PUC charges the



transmission facility applicant the full costs of processing the transmission application including labor, overhead and contracting.<sup>16</sup> One utility executive was very critical of the PUC's process, a second indicated that the process was not too bad, but acknowledged the PUC's deficient economic analysis in the case of Path 15. The Path 15 issue was eventually resolved by PUC President Mike Peavey forcing the issue into FERC jurisdiction for its determination.<sup>17</sup> President Peavey has acknowledged that the PUC staff's analysis was deficient.<sup>18</sup> The PUC has initiated an Order to Initiate Rulemaking for the purpose of revising the process and making it more efficient and responsive.

In the 1990s, the Little Hoover Commission found that the advent of competition provided the state an opportunity to consolidate the siting approval processes for generation and transmission.<sup>19</sup>

### ***Oil refineries and other petroleum infrastructure***

There has not been a new oil refinery built in California in the past 35 years.<sup>20</sup> High gasoline prices have been attributed, in part, to the lack of adequate oil refinery facilities.<sup>21</sup> During an April 22, 2004, interview on NBC TV's *Meet the Press*, Prince Bandar of Saudi Arabia responded to a question from NBC's Tim Russert regarding crude oil prices:

Well, there is a reason, because it's not a matter of crude. The reason you have high prices in United States is the refineries are not enough to refine. There is a one-million-barrel shortage of refined products. So even if tomorrow we send you all the oil we have as crude, it will not change the facts here. Do you know, Tim, that the United States has not built a refinery for about 15 years? And like our oil minister said the other day in Dallas, we are willing to invest in refineries in the United States of America and that will be really the best route to go.<sup>22</sup>

According to one source, California ports find that it is in their economic interest to build container facilities instead of marine petroleum product terminals, tank farms and associated piping because they receive more income and incur less risk.<sup>23</sup> One agency does not have overall responsibility for the permitting process for marine terminals, refineries and other facilities. The fractured nature of regulatory authority makes it very difficult to obtain the appropriate permits and makes it relatively easy for a project opponent to derail the project because of the multiple venues to which the developer has to go.<sup>24</sup> The legislature has recognized this as a problem and Assemblyman Alan Lowenthal introduced Assembly Bill 1991 that would assign oil refinery facility siting to the CEC.<sup>25</sup>

Cities, counties and port authorities are the entities that usually will take responsibility for permitting of marine petroleum product terminals, tank farms and associated piping. These entities typically require reimbursement from the applicants for the entire cost of processing the applications, including labor, overhead and consulting contracts.



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### ***Liquefied Natural Gas (LNG)***

The issue of the state's role in permitting Liquefied Natural Gas (LNG) facilities is also fractured, since no one agency has complete jurisdiction. An LNG Interagency Permitting Working Group has been established in an attempt to coordinate permitting issues.<sup>26</sup> FERC recently issued a letter asserting jurisdiction and preempting state permitting jurisdiction, and the PUC has requested reconsideration of this ruling.<sup>27</sup> It is not clear, at this point, how much of the LNG facility would be covered by the FERC preemption, if at all. Presumably parts of the facility would be outside the FERC jurisdiction. State agencies frequently have an opportunity to participate in FERC proceedings.

### ***Recommendations***

- A. The Governor should work with the Legislature to combine all energy related infrastructure siting authority under one department within the Business, Transportation and Housing, or its successor. The consolidation would include functions from the California Energy Commission (CEC), the Public Utilities Commission (PUC) and expanded authorities to include the siting of petroleum infrastructure (refineries, tank farms, pipelines, and petroleum related marine facilities) and Liquefied Natural Gas (LNG) facilities.**
- B. The Governor should work with the Legislature to require the CEC, or its successor, to charge applicants siting and compliance fees that reflect the actual costs of processing the application. These fees should be implemented after the siting entity completes a siting cost study.**

### ***Fiscal Impact***

These recommendations do not impact the General Fund because funding for energy related infrastructure siting functions is from the Energy Resources Program Account. The source of funding for this account is a surcharge imposed on electricity consumed in California.

By combining the energy related infrastructure siting authority into one agency, it is estimated that the one-time relocation costs for a limited number of PUC staff moving from San Francisco to Sacramento, and the one-time costs associated with relocating the related office operation will be approximately \$333,300.

An additional 15 personal years (PY) will be needed to accommodate the increased state workload related to the permitting process for oil refineries, pipelines and marine petroleum product terminals (petroleum facilities). These functions are now the responsibility of local jurisdictions. The annual, ongoing cost for the additional PYs is estimated to be \$1.5 million, beginning in Fiscal Year 2005–2006. It is expected that the costs associated with the increased workload from siting petroleum facilities will be recovered from applicants through fees, similar to the process currently used by local jurisdictions.



It is estimated that the cost of the siting cost study will be \$100,000 and will be absorbed by the Energy Commission. Under the current fee structure, the state does not collect the full cost associated with administering the power plant siting process. Depending on the results of the cost study, the extent to which the state implements a fee structure to recover the costs of processing permit applications, and the number of applications processed, there could be a savings to the state in future years. With a fully implemented fee structure, it is estimated the resulting savings to the state on average would be \$440,000 per application.

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## Endnotes

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  - <sup>4</sup> Interview with Ann Cleary, Mirant, Sacramento, California, April 12, 2004; interview with Jim Shetler, SMUD, Sacramento, California (April 12, 2004).
  - <sup>5</sup> 14CCR section 15251, subd. (k).
  - <sup>6</sup> Air Quality, Public Health, Worker Safety and Fire Protection, Transmission Line Safety and Nuisance, Hazardous Materials Management, Waste Management, Land Use, Traffic and Transportation, Noise, Visual Resources, Cultural Resources, Socioeconomics, Biological Resources, Soil & Water Resources, Geological and Paleontological Resources, Facility Design, Power Plant Reliability, Power Plant Efficiency, Transmission System Engineering, CEC, "Energy Facility Licensing Process," 11/00, pp. 18–39,  
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  - <sup>7</sup> CEC, "Energy Facility Licensing Process," 11/00,  
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  - <sup>8</sup> CEC, "Rules Practice and Procedure and Power Plant Siting Regulations," August 2000, p. 59,  
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  - <sup>9</sup> CEC, "Siting Fee Study," January 2003,  
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  - <sup>10</sup> California Senate, "SB 1049," Sec. 25806, February 2003,  
[http://www.leginfo.ca.gov/pub/bill/sen/sb\\_1001-1050/sb\\_1049\\_bill\\_20031009\\_chaptered.html](http://www.leginfo.ca.gov/pub/bill/sen/sb_1001-1050/sb_1049_bill_20031009_chaptered.html) (last visited June 7, 2004).
  - <sup>11</sup> PUC, D.95-12-063, modified in D.96-01-009, required the investor-owned utilities (IOUs) to divest at least 50% of their fossil-fuel electric generating assets.
  - <sup>12</sup> Interview with Don Kondoleon, CEC, May 19, 2004; interview with Paul Clannon, PUC, CEC (May 19, 2004).
  - <sup>13</sup> Interview with PUC President Mike Peavey (March 31, 2004).
  - <sup>14</sup> Interview with CEC Commissioner John Geesman (March 23, 2004).
  - <sup>15</sup> Interview with Don Kondoleon, CEC (May 19, 2004); interview with Paul Clannon, PUC, CEC (May 19, 2004).
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- <sup>16</sup> Interview with Paul Clannon, PUC, CEC (May 19, 2004).
- <sup>17</sup> Path 15 is part of the transmission connection between Northern and Southern California. It is undersized to handle the load on peak days and for this reason becomes the “choke point” in the transmission system, limiting the ability to move power between the North and the South. PG&E has been trying to obtain the PUC’s approval to expand Path 15’s capacity for several years; interview with PUC President Mike Peavey, San Francisco, California, March 31, 2004.
- <sup>18</sup> Interview with PUC President Mike Peavey, San Francisco, California (March 31, 2004).
- <sup>19</sup> Little Hoover Commission, “When Consumers Have Choices: The State’s Role in Competitive Utility Markets, Report No. 139,” December 1996, <http://www.lhc.ca.gov/lhcdir/139/139rpt.html> (last visited June 7, 2004).
- <sup>20</sup> Interview with CEC Commissioner John Geesman (March 23, 2004).
- <sup>21</sup> CEC, “Transportation Fuels, Technologies, and Infrastructure Assessment Report,” <http://www.energy.ca.gov/reports/100-03-013F.PDF> (last visited June 7, 2004).
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- <sup>26</sup> California Energy Commission, “LNG Interagency Permitting Working Group,” [http://www.energy.ca.gov/lng/working\\_group.html](http://www.energy.ca.gov/lng/working_group.html) (last visited June 7, 2004).
- <sup>27</sup> Interview with PUC President Mike Peavey, San Francisco (March 31, 2004); Reuters, <http://www.reuters.com/newsArticle.jhtml?type=topNews&storyID=4915642> (last visited June 7, 2004).



# Energy Conservation, Efficiency have not Achieved Full Potential

## **Summary**

Energy conservation, efficiency and peak reduction programs have not achieved their full potential because of the absence of a clear and unified state conservation-efficiency-peak reduction policy. These programs are sponsored by a variety of state agencies and offered by utilities and third-party providers, through programs that are often duplicative and whose cost-effectiveness is not well demonstrated.

## **Background**

California is continuing to consume energy at an unsustainable rate, far exceeding its native resources and increasing its reliance on imports from other states and other countries. For instance, while 74 percent of the electricity California uses is produced in-state, 84 percent of the natural gas California consumes is imported from other states or Canada.<sup>1</sup> Recent proposals to import Liquefied Natural Gas (LNG) from Bolivia, Indonesia or Australia would further increase California's dependence on foreign energy by about 10 percent, or 350–700 billions of cubic feet (BCF/year).<sup>2</sup>

California's electric consumption is growing at a compounded annual rate of 1.3 to 2.2 percent while the associated electricity usage at peak times is growing at a 1.6 percent rate.<sup>3</sup> Natural gas consumption is growing at a one percent annual rate. This represents 257,800 gigawatt-hours (GWh/year) of electricity, 52,700 megawatts of which is used at peak times and 2.2 trillion cubic feet per year (TCF/year) of natural gas.<sup>4,5</sup> As a point of reference, a typical residential customer consumes approximately 650 kilowatt hours (kwh) of electricity per month; one megawatt represents enough electrical capacity to supply 1,000 homes with electricity.

Interestingly, per capita residential energy consumption has remained relatively flat since the 1970s in spite of dramatic growth in both population and end energy uses. According to a paper authored by Charles Eley, energy consumption has increased approximately 50 percent in the same period. This phenomenon is attributed to the strict energy standards adopted for new construction in California.<sup>6</sup> Large amounts of energy are being wasted because older homes use more energy than modern homes. A home built to the currently applicable energy standards consumes 30–40 percent less energy than a house built to 1984 standards.<sup>7</sup> More than 67 percent of existing homes in California were built prior to 1984. There are approximately 12.2 million residential units and 6 billion square feet of non-residential units in California.<sup>8</sup>

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In the 2003 Energy Action Plan, the California Energy Commission (CEC), California Public Utilities Commission (PUC) and California Power Authority (CPA) agreed on the following “loading order” for resource addition:

The Action Plan envisions a “loading order” of energy resources that will guide decisions made by the agencies jointly and singly. First, the agencies want to optimize all strategies for increasing conservation and energy efficiency to minimize increases in electricity and natural gas demand. Second, recognizing that new generation is both necessary and desirable, the agencies would like to see these needs met first by renewable energy resources and distributed generation. Third, because the preferred resources require both sufficient investment and adequate time to “get to scale,” the agencies also will support additional clean, fossil fuel, central-station generation. Simultaneously, the agencies intend to improve the bulk electricity transmission grid and distribution facility infrastructure to support growing demand centers and the interconnection of new generation.<sup>9</sup>

### ***Conservation and efficiency***

California has recognized the value of conservation, energy efficiency and peak reduction and has actively promoted such measures as public policy. Such activities in California are generally either self-initiated by the consumer or promoted by one of many Public Goods Charge (PGC) funds administered by the PUC mainly through Investor Owned Utility (IOU) or Third Party Programs.<sup>10</sup> PGC funds are raised through a surcharge on electricity sold to consumers by investor owned utilities. PGC funds a variety of activities, including approximately \$280 million per year for the portion that funds conservation, energy efficiency and peak reduction programs.<sup>11</sup>

The PGC-funded programs generally rely on buy-downs, promotions or behavioral modification to achieve savings. Although these programs have had varying levels of success in achieving energy savings or peak load savings, the funds spent on buy-downs, promotions or behavioral modifications create the benefit only once. Once the buy-down has taken place, the funds get used up.<sup>12</sup>

A more cost-effective approach is a loan program, where the loan principal is conserved and is available to make loans over and over again. In loan programs, typically the loan is repaid over a period of less than seven years from energy savings resulting from the implementation of a measure or the installation of a device. The Energy Efficiency Financing Program, administered by the CEC has disbursed more than \$118 million in loans since 1979 from an initial fund of about \$73 million. There has only been one instance in which the entire loan principal was not recovered in the entire 25 years of the program’s existence.<sup>13</sup> PGC funds are not currently being used for funding any loan programs.

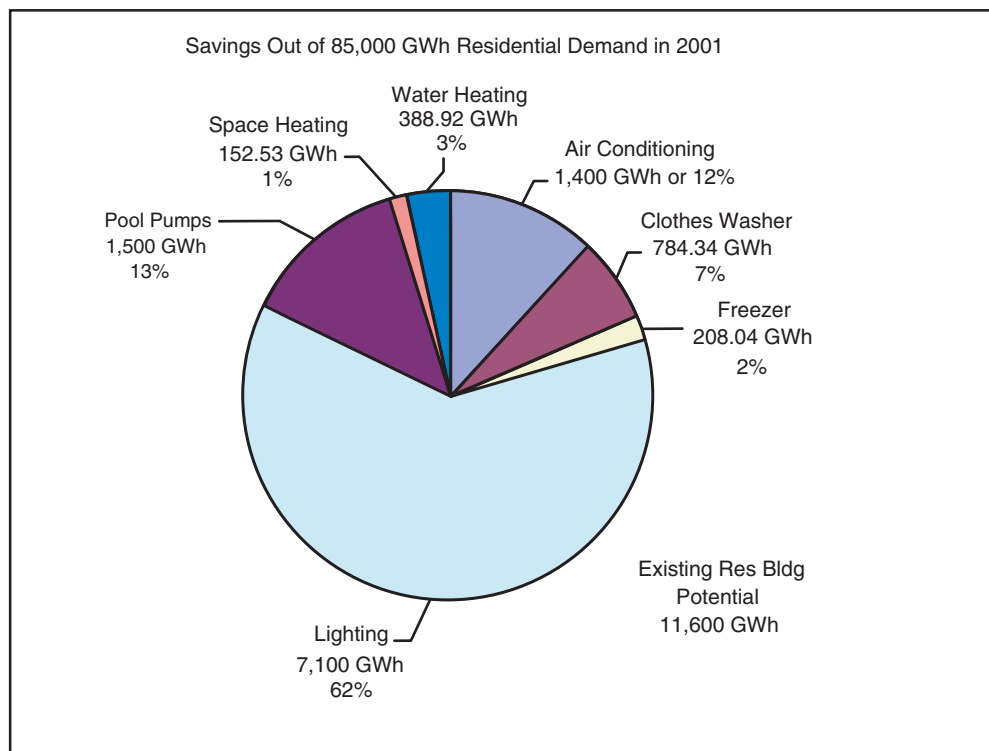


Getting consumers to implement conservation, energy efficiency or peak reduction measures subject to controlling costs is a complicated matter. There are many competing policy issues, stakeholders and technologies while resources, such as PGC funds, are limited. The complexity of the market requires a mix of approaches to achieve the conservation, energy efficiency or peak reduction objectives. In accomplishing those objectives, it is important to minimize duplication, overlap and conflicting policy and to coordinate programs. While no single program mix is the solution, it appears that a greater emphasis is required to include loan programs into the mix of PGC funded programs.

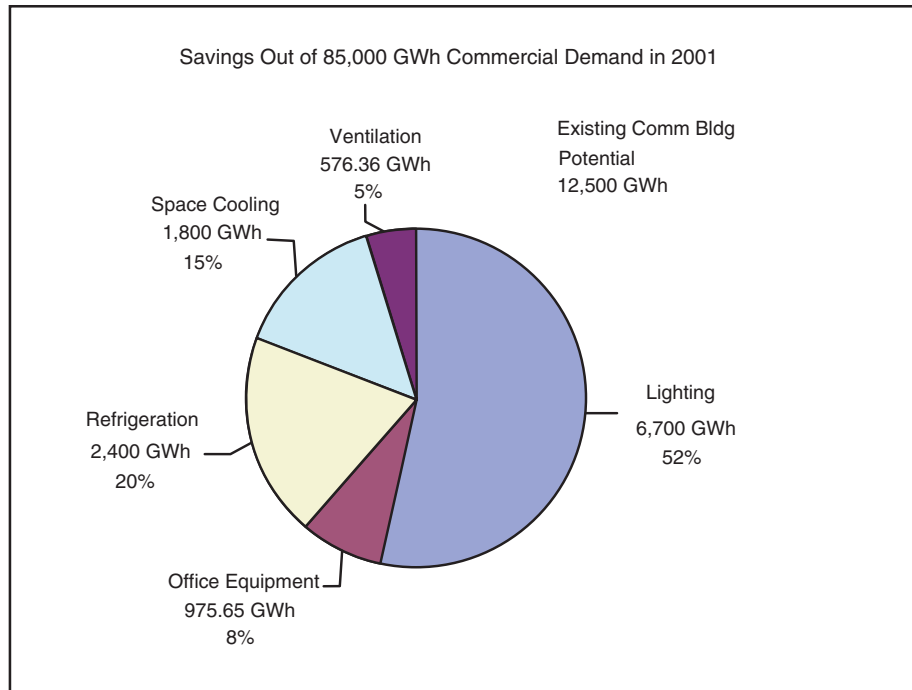
Recognizing that a huge potential exists for energy conservation and efficiency in the residential and commercial sectors, the Legislature passed Assembly Bill 549, requiring that "the commission (CEC) . . . investigate options and develop a plan to decrease wasteful peakload energy consumption in existing residential and nonresidential buildings."<sup>14</sup>

In response to this mandate, the CEC estimated in its *AB 549 Interim Report to the Legislature*, that 24,219 gigawatt-hours/yr (millions of kilowatt-hours/yr), 5,402 megawatts of peak conservation and efficiency potential exists that is technically achievable and cost-effective.<sup>15, 16</sup>

**Figure 1**<sup>17</sup>



**Figure 2**<sup>18</sup>



Achieving even a portion of this potential would represent a significant reduction of energy consumption. Governor Schwarzenegger, in a recent letter to the Western Governor's Association, stated his position relative to economic growth through conservation and renewable energy sources:

"Relatively untapped, and hugely promising, are other possibilities: solar, wind, zero-emission coal, biomass, and energy conservation . . . Our objectives should be to develop at least 30,000 megawatts of clean energy in the West by 2015, and to increase the efficiency of energy use by 20 percent by 2020."<sup>19</sup>

Information developed by the CEC in its *Assembly Bill 549 Interim Report* indicates that this goal is achievable.<sup>20</sup>

### **Conservation, energy efficiency and greenhouse gases**

Not only does energy conservation and efficiency reduce operating costs for residential as well as commercial and industrial customers, it is also beneficial to the environment because reduction of energy consumption has a direct impact on the emission of greenhouse gases. It is estimated that reducing energy consumption, not including emissions from transportation, by 20 percent, can reduce emissions by 29.3 million tons of carbon dioxide.<sup>21</sup>



**Demand reduction and conflicting views of several experts**

Among the conundrums of California's energy policy are some of the contradictions of its principal energy agencies. For instance, in the *Integrated Energy Policy Report*, the CEC states:

"Under average weather conditions, the Energy Commission believes that California should have adequate supplies of electricity through 2009. However, because unusually hot weather conditions can significantly drive peak electricity demand, the Energy Commission is concerned about adequate supplies of electricity beginning in 2006."<sup>22</sup>

The PUC in its *Core Non-Core Structure for Electricity in California* report states:

"Based on the assessments described above, we conclude that there are ample resources for California to meet demand for 2004 as well as adequate resources available for California to meet peak demand through 2007 although all of these forecasts, particularly in the "out" years, contain some element of uncertainty."<sup>23</sup>

The PUC expands on this lack of consensus:

The California Energy Commission, in its *Integrated Energy Policy Report*, reached somewhat similar conclusions noting a potential need for new resources in 2006, while the California ISO believes that under adverse conditions, for which the probability of these conditions occurring is not determined, the state could face resource shortfalls in 2005.<sup>24</sup>

While some of these discrepancies can be explained in terms of differences of perspective or base assumptions, they create confusion and conflict within regulatory agencies, program delivery organizations and the general public.

**Other programmatic alternatives**

Policy-makers, academics and utilities have developed other alternative schemes where existing Investor Owned Utility customers can benefit from peak reduction activities. These include: air conditioning cycling programs; Dynamic Spot Pricing rates, which are rates that vary with the cost of energy; Time of Use rates that vary with the time of day; and load shedding. Another promising approach is "Distributed Generation," a concept that permits the consumer—usually a commercial or industrial customer—to produce a portion of his or her needs at the facility in question while taking the balance of the needed power from the electrical grid. This approach not only reduces the amount of energy consumed at peak times, but also reduces impacts on the transmission and distribution grid.

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Some of these programs, such as Dynamic Pricing, have been inhibited for lack of funding through rates which are approved by the PUC and, in some cases, non-cooperation by the utilities themselves.

### ***Recommendations***

- A. The Governor should work with the Legislature to consolidate all energy planning and policy development and implementation under one organization within the Business, Transportation and Housing Agency, or its successor.**
- B. The Governor should direct the California Energy Commission (CEC), or its successor, to adopt a state policy goal for conservation/energy efficiency.**

Quantifying the goal will result in laying out expectations and making participants more accountable. This goal would apply to state owned and operated facilities as well as being a goal that would be applicable to all consumption within California.

- C. The Governor should direct CEC, or its successor, to implement conservation and energy efficiency programs for state-owned and operated facilities including the University system to reduce consumption by 20 percent using 2003 for a benchmark.**
- D. The Governor should direct the California Public Utilities Commission (PUC), or its successor, to adopt a state policy of promoting peak load management through conservation and energy efficiency and demand reduction measures.**

Because peak energy generally is the most expensive to serve, focusing on peak load reduction results in maximum benefits.

- E. The Governor should direct CEC, or its successor, to adopt a state policy of financing conservation and energy efficiency and demand reduction projects financed through savings by December 31, 2005.**

Financing projects is considerably more cost-effective and long lasting than grants, buy-downs and motivational programs.

- F. The Governor should direct PUC, or its successor, to shift a portion of Public Goods Charge funding from motivational, grant, and buy down programs to fund energy loan programs such as the Green Bank. A suggested amount is \$40 million per year for five years.**



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**G. The Governor should direct the California Energy Commission, or its successor, to:**

1. Institute strong performance Measurement and Verification (M&V) protocols to verify projected results for the PGC program and to ensure that funding isn't wasted.
2. Require that PGC-funded conservation and energy efficiency programs benefit all ratepayers as an aggregate.

***Fiscal Impact***

By consolidating specified energy conservation functions under one agency, relocation costs will be incurred for a limited number of PUC staff to move from San Francisco to Sacramento. Other costs associated with relocating the related office operation will also be incurred. These combined one-time costs are estimated to be \$393,900. Funding for these expenditures would come from the Energy Resources Program Account.

To the extent that investments are made in state energy efficiency programs and through the promotion of peak load management, it is anticipated that energy usage by state agencies will be reduced and cost avoidance impacting the General Fund will be realized.

By initiating the use of financing mechanisms to support investments in energy efficiency programs, funding can be maximized with actual savings realized within seven years or less of the initial investment. The amount and timing of the savings is dependent upon the level of investment, the specific project undertaken by the state agency and the repayment schedule.

Based on estimates from the Department of General Services, more than three billion kwh of electricity is consumed each year by state facilities, with an annual cost of approximately \$390 million.<sup>25</sup> For every one percent reduction in usage per year accomplished through the use of energy efficiency programs, the state would potentially realize \$3.9 million annually in savings related to energy expenditures. This funding would then be available to begin repayment of the initial investment. Using a maximum repayment schedule of seven years, the initial investment required to result in the one percent reduction mentioned above would be \$27.3 million. To the extent the reduction in usage is greater than one percent, more energy costs are avoided and the payback time for the initial investment is reduced.

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**Endnotes**

<sup>1</sup> California Energy Commission, "California's Major Sources of Energy," <http://www.energy.ca.gov/html/energysources.html> (last visited June 7, 2004).

<sup>2</sup> California Energy Commission, "California Historical Natural Gas Supply by Source," [http://www.energy.ca.gov/naturalgas/statistics/gas\\_supply\\_by\\_source.html](http://www.energy.ca.gov/naturalgas/statistics/gas_supply_by_source.html) (last visited June 7, 2004).

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- <sup>3</sup> Telephone conversation with William Schooling, California Energy Commission (May 14, 2004).
- <sup>4</sup> California Energy Commission, "Electricity and Natural Gas Assessment Report—Final Commission Report" (includes Appendices), publication #100-03-014F. Adopted by Energy Commission November 12, 2003 (last visited June 7, 2004).
- <sup>5</sup> California Energy Commission, "California Energy Demand 2003–2013 Forecast—Staff Report," publication #100-03-002, August 8, 2003.
- <sup>6</sup> American Council for an Energy Efficient Economy, "Raising the Bar: How California's New 2005 Standard Saves 478 GWh and 181 MW a Year," by Charles Eley, June 2004, pp. 1, 2.
- <sup>7</sup> E-mail from Charles Eley, Architectural Energy Corporation (June 6, 2004).
- <sup>8</sup> California Energy Commission, Accessing The Energy Savings Potential In California's Existing Buildings, pp. 7–9, [http://www.energy.ca.gov/ab549/documents/2003-11-20\\_interim\\_report.pdf](http://www.energy.ca.gov/ab549/documents/2003-11-20_interim_report.pdf) (last visited June 7, 2004).
- <sup>9</sup> California Energy Commission, "Energy Action Plan," p. 4, [http://www.energy.ca.gov/energy\\_action\\_plan/](http://www.energy.ca.gov/energy_action_plan/) (last visited June 7, 2004).
- <sup>10</sup> Municipal utilities also have similar programs.
- <sup>11</sup> California Public Utilities Commission, Decision 04-02-059, 02/26/04, [http://www.cpuc.ca.gov/word\\_pdf/final\\_decision/34516.doc](http://www.cpuc.ca.gov/word_pdf/final_decision/34516.doc) (last visited June 14, 2004).
- <sup>12</sup> Interview with Darryl Mills, California Energy Commission, Sacramento (May 20, 2004).
- <sup>13</sup> Telephone conversation with Virginia Lew, California Energy Commission (June 4, 2004).
- <sup>14</sup> California Assembly, "Assembly Bill 549," [http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab\\_0501-0550/ab\\_549\\_bill\\_20011014\\_chaptered.html](http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_0501-0550/ab_549_bill_20011014_chaptered.html) (last visited June 7, 2004).
- <sup>15</sup> California Energy Commission, "Energy Savings Opportunities for Existing Buildings," November 2003, [http://www.energy.ca.gov/ab549/documents/2004-04-27\\_AB549\\_hmg\\_report.pdf](http://www.energy.ca.gov/ab549/documents/2004-04-27_AB549_hmg_report.pdf) (last visited June 7, 2004).
- <sup>16</sup> Telephone conversation with Bruce Cenicerros, California Energy Commission (April 19, 2004), "Technically achievable potential includes criteria such as payback period (<10 years) and achievable market penetration and other criteria."
- <sup>17</sup> California Energy Commission, "Energy Efficiency: Potential Energy and Dollar Savings and Delivery Strategies," by Commissioner Art Rosenfeld, December 15, 2003, Slide 3, <http://www.energy.ca.gov/commission/commissioners/rosenfeld.html> (last visited June 7, 2004).
- <sup>18</sup> California Energy Commission, "Energy Efficiency: Potential Energy and Dollar Savings and Delivery Strategies," by Commissioner Art Rosenfeld, December 15, 2003, Slide 4, <http://www.energy.ca.gov/commission/commissioners/rosenfeld.html> (last visited June 7, 2004).
- <sup>19</sup> Office of Governor Arnold Schwarzenegger, Text of Letter from Governor Schwarzenegger and Governor Richardson to Western Governors' Association, April 18, 2004.
- <sup>20</sup> California Energy Commission, "Accessing The Energy Savings Potential In California's Existing Buildings," pp. 7–9, [http://www.energy.ca.gov/ab549/documents/2003-11-20\\_interim\\_report.pdf](http://www.energy.ca.gov/ab549/documents/2003-11-20_interim_report.pdf) (last visited June 7, 2004).
- <sup>21</sup> Office of Governor Arnold Schwarzenegger, Text of Letter from Governor Schwarzenegger and Governor Richardson to Western Governors' Association, April 18, 2004.
- <sup>22</sup> California Energy Commission "2003 Integrated Energy Policy Report," February 2004, p. 9. [http://www.energy.ca.gov/2003\\_energypolicy/index.html](http://www.energy.ca.gov/2003_energypolicy/index.html) (last visited June 7, 2004).
- <sup>23</sup> California Public Utilities Commission, "Core Non Core Structure for Electricity in California," March 15, 2004, pp. 34–35. <http://www.cpuc.ca.gov/published/report/34806.pdf> (last visited June 7, 2004).
- <sup>24</sup> California Public Utilities Commission, "Core Non Core Structure for Electricity in California," March 15, 2004, pp. 34–35. <http://www.cpuc.ca.gov/published/report/34806.pdf> (last visited June 7, 2004).
- <sup>25</sup> Verbal estimate by Douglas Grandy, Department of General Services (May 10, 2004).



# Transportation Hampered by Unhealthy Fuel Market

## **Summary**

California's fragile and uncompetitive transportation fuel market is an impediment to the productivity of its citizens, businesses and government. Inflexible federal and state regulation mandated the exclusive use of special boutique fuels. This improved air quality but contributed to high prices and unhealthy market behavior. The state has no coordinated fuel strategy and does not effectively encourage the development of alternatives.

There are two ways to improve this situation and develop a healthy and diverse fuel market. First, fuel policy needs to be coordinated across the state's organizations, bringing together experts and best practice, and setting out a clear approach for our citizens. This will not require additional resources or costs as budgets are already in place across a range of departments to develop strategy. Second, the use of alternative fuels must be incentivized to encourage citizens, businesses and institutions, including the state, to try new options for fuel. Additional incentive programs could incur costs, which should be examined as part of a coordinated approach to fuel strategy.

## **Background**

There are four key problems in California's fuels market today: high cost fuels; special boutique fuels with rising cost and limited supply; no encouragement of alternatives; and no coordinated strategy.

Supplies of electricity, natural gas and transportation fuels are tight and prices in California are the highest in the nation.<sup>1</sup> California is increasingly dependent on imported energy supplies for electricity, heating and transportation.

California is unique in relying on specific blends of gasoline that were intended to be the "world's cleanest burning gasoline" and reduce air pollution in the state's urban areas. However, the resulting special boutique fuels are more difficult to refine and, as a result, are more costly to produce. Alternative supplies are not readily available, and costs are passed on to the consumer.

There is no state encouragement for emerging fuels. California's Renewables Portfolio Standard requires utilities to increase procurement of electricity from renewable energy sources by at least 1 percent per year, up to 20 percent. However, there are no incentive programs aimed at emerging fuels such as ethanol and biodiesel.

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Finally, there is no coordinated strategy to facilitate a healthy fuel market. Under the existing state organizational structure, at least 17 different departments have planning, policy and enforcement roles in the production and use of transportation fuels. The two departments managing the majority of regulation, the California Energy Commission (CEC) and the Air Resources Board (ARB) show little evidence of working together.

### ***Solutions are available***

First, to create a healthy and diverse fuel market, California should create a coherent policy that encourages a diversified supply and directs the many departments with roles in fuels to work together to support research and coordinate environmental management functions. Current proposals to consolidate Research & Development and Planning & Evaluation of the state's infrastructure would support the development of one centralized policy unit.

Second, the Governor should also encourage the use of alternative and emerging fuels. Emerging fuels, such as biodiesel and ethanol, can be used in existing vehicles. Ethanol is produced from agricultural waste and forest products, and biodiesel is produced from animal and vegetable oils. No modification is necessary to use biodiesel in modern diesel engines and there is little modification required of existing supply infrastructure. Both biodiesel and ethanol can be produced in California, they are non-toxic and relatively low cost. Importantly, their emissions are significantly cleaner than petroleum fuels and they contribute no net increase in climate change pollutants. California's state government itself can contribute greatly to the development of an emerging fuels market by requiring state agencies to purchase those fuels for its 78,000 vehicle fleet.

Incentives should incorporate the current limited efforts including an amendment of California's Carl Moyer Memorial Air Quality Standards Attainment Program. The program should include financing for emerging fuels, not just more efficient engines. It currently provides incentive funds for "cleaner than required" engines and equipment to reduce air pollution from combustion. Most of the engines that the program finances can be fueled with biodiesel without any modification. Funding for the program averages \$25 million per year from a \$6 per vehicle registration fee from the Department of Motor Vehicles.

### ***Recommendations***

- A. The Governor should bring together the current fuel strategy efforts from the 17 different departments affecting fuel into one single entity focused on delivering a comprehensive fuel strategy for California.**
- B. The Governor should consolidate existing incentive programs and consider federal, state and local funding sources to provide grants for research and pilot projects to support the development of emerging fuels and related technologies. For example, the Carl Moyer Program should be amended to include incentives for emerging fuels.**





### ***Fiscal Impact***

There are expected to be no new costs in developing an integrated fuel strategy. This proposal aims to bring the experts and funds together from the 17 different departments to deliver a comprehensive strategy.

Introducing incentives for emerging fuels is likely to have cost implications. Currently emerging fuels are not less expensive than prices “at the pump” and can cost a slight premium. The next step is to evaluate the options for incentives and their effectiveness in changing the behavior of fuel consumers. This will enable a clear decision to be taken on which incentives to introduce and to set benchmarks by which to measure their success. At this point, the cost to the state is that of undergoing an assessment of the options.

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### **Endnotes**

- <sup>1</sup> CEC, 2003 *Integrated Energy Policy Report*, [http://energy.ca.gov/2003\\_energypolicy/index.html](http://energy.ca.gov/2003_energypolicy/index.html) p. vi (last visited June 13, 2004).







# Consolidate the Ratepayer Advocacy and Public Participation Programs at the Public Utilities Commission

## **Summary**

Two offices within the California Public Utilities Commission—the Office of Ratepayer Advocates and the Office of Public Advisor—provide assistance to individuals and groups who want to participate in Public Utilities Commission proceedings. In addition, both offices advise the Commissioners on the consequences to ratepayers of Commission decisions, and work to eliminate barriers to public and ratepayer advocacy on matters pending before the commission. This results in costly, duplicative effort.

## **Background**

### **History and purpose of the OPA and ORA**

The Office of Public Advisor (OPA) provides procedural information and advice to individuals and groups who want to participate in formal PUC proceedings. Existing law directs this office to publish a guide to public participation in PUC proceedings for members of the public and ratepayers.<sup>1</sup> OPA also disseminates information to ratepayers and groups on the intervenor compensation program, a statutory program that provides compensation for advocate's fees, expert witness fees and other reasonable costs to public utility customers of participation or intervention in any proceeding of the commission.<sup>2</sup>

The Office of Ratepayer Advocates (ORA) was created by law, and exists to represent the interests of public utility customers and subscribers.<sup>3</sup> The office's statutory purpose is to seek the lowest possible rate for service, consistent with reliable and safe service levels. ORA represents ratepayers in all PUC proceedings related to electric, gas, telecommunications, and water public utilities.<sup>4</sup>

### **Duplication of effort**

ORA has statutory authority to compel the production or disclosure of any information from a regulated entity it deems necessary to perform its duties.<sup>5</sup> In practice, ORA frequently uses this authority in a manner that duplicates efforts of others participating in a proceeding.

For example, the 2001–2002 State Budget proposed \$456,000 for ORA to augment existing funds for consultants. ORA would have used these funds to begin monitoring trends in

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complaints taken by the commission's Consumer Services Division, and increase its involvement in commission proceedings. But the PUC budget for that year also included an augmentation for PUC's Consumer Services Division to carry out a more systematic analysis of trends in customer complaints. The California Legislative Analyst's Office noted that ORA's proposal duplicates this effort, which led to elimination of the funds from the 2001–2002 State Budget.<sup>6</sup>

In addition to directing that ORA protect the interests of ratepayers and consumers, the law allows any member of the public or ratepayer advocacy group to intervene in PUC proceedings.<sup>7</sup> Section 1801.3 of the Public Utilities Code effectively guarantees public involvement in proceedings of PUC by making the intervenors eligible for compensation to cover all expenses incurred in the case, as long as PUC determines that an intervenor's efforts substantially contributed to the ultimate decision reached by the PUC.<sup>8</sup> As participating litigants, intervenors have rights to discover relevant documents and materials, examine utility witnesses, and do everything necessary to represent the interests of ratepayers.

But as noted above, ORA also intervenes as a party in these same PUC proceedings, and often advances a position identical to the one taken by an intervening party in the same proceeding. Public utilities that are regulated by the PUC report that both ORA and third party ratepayer advocacy groups formally intervene in all but the most inconsequential proceedings involving the regulated entities.<sup>9</sup>

Section 1801.3 of the Public Utilities Code requires that the intervenor compensation program applicable in PUC proceedings be administered by PUC in a manner that avoids "unproductive or unnecessary participation that duplicates the participation of similar interests otherwise adequately represented" in PUC proceedings.<sup>10</sup> PUC appears not to adhere to this statute. OPA encourages public participation and assists the public in receiving compensation for efforts on behalf of ratepayers, but ORA also intervenes regardless of whether private consumer and ratepayer groups may be involved in the same proceedings. There appears to be little coordination of effort between the two offices to follow statutory direction to avoid unnecessary participation in cases when similar interests are otherwise represented.

Private ratepayer advocacy groups routinely intervene in PUC proceedings, and are routinely compensated for their participation because, in nearly all cases, the consumer advocacy group intervenor "substantially contributes" to PUC decisions, triggering compensation pursuant to law. ORA participates in nearly all PUC proceedings as well, regardless of whether its efforts contributed to the decision reached by the commissioners, and regardless of whether public or rate-payer intervenors are compensated in the same proceeding, for advocating the same position on behalf of the same constituency.



For example, a review of all PUC proceedings between January 1, 2003 and June 1, 2003 illustrates this duplication of effort by dual representation. The review revealed that, during this period, PUC issued 19 decisions granting intervenor compensation to ratepayer advocacy groups other than ORA. ORA participated in each of the 19 cases, advocating positions that were largely indistinguishable from those of the intervenors.<sup>11</sup>

### **Consolidation**

Consolidation of ORA into OPA would alleviate ORA's duplicative efforts. Such a consolidation would help the PUC to identify proceedings in which intervenors are participating on behalf of ratepayers, and to ascertain which cases did not require concurrent ORA intervention to argue the same or substantially similar issues.

In addition, consolidating the two offices would not diminish the strenuous advocacy for ratepayer interests in PUC proceedings. Ratepayer interests would continue to be represented by consumer/ratepayer intervenors or ORA itself in their absence. Further, if ORA perceives a need to supplement the efforts of private consumer and ratepayer groups that may have intervened in a particular proceeding, it could file concurrent pleadings and other documents in a proceeding in which the ratepayer advocacy entities have intervened.

### **Recommendation**

**The Governor should work with the Legislature to consolidate ORA and OPA to eliminate conflicts, duplication and excessive costs. This action would merge two PUC offices that are mandated to advocate on behalf of ratepayers, and eliminate duplication of their advocacy efforts.**

### **Fiscal Impact**

By organizationally consolidating the Office of Ratepayer Advocates with the Office of Public Advisor, the expectation is that the duplication of effort now expended on behalf of ratepayers through advocacy activities will be reduced with a corresponding reduction in staffing. The actual reduction will occur over time and cannot be determined at this time. Funding for ORA is generated from the Ratepayer Relief Fund. Therefore, any savings will accrue to this special fund beginning in Fiscal Year 2005–2006.

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## **Endnotes**

- <sup>1</sup> *Public Utilities Code Section 321.6. See also, Pub. Util. Code Section 321.5, which directs PUC to establish a separate office of the public advisor in the commission's Los Angeles office. The ratepayer participation guide is available at <http://www.cpuc.ca.gov/static/aboutcpuc/divisions/cpinfo/public+advisor/08-04-03+guide.htm> (last visited June 4, 2004).*
- <sup>2</sup> *Pub. Util. Code Section 1801 et seq. The intervenor compensation guide is available at <http://www.cpuc.ca.gov/PUBLISHED/REPORT/33691.htm> (last visited June 4, 2004).*

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- <sup>3</sup> For revenue allocation and rate design matters, the ORA is directed by law to primarily consider the interests of residential and small business customers. Pub. Util. Code Section 309.5.
- <sup>4</sup> ORA Mission Statement, available at <http://www.ora.ca.gov/about+us/mission/index.htm> (last visited June 12, 2004); interview with David Morse, ORA staff attorney (May 11, 2004).
- <sup>5</sup> Pub. Util. Code Section 309.5.
- <sup>6</sup> Analysis of the 2001–2002 Budget Bill, Legislative Analyst’s Office, Sacramento, California, 2001, available at [http://www.lao.ca.gov/analysis\\_2001/general\\_govt/gen\\_31\\_8660\\_PUC\\_anl01.htm#\\_1\\_9](http://www.lao.ca.gov/analysis_2001/general_govt/gen_31_8660_PUC_anl01.htm#_1_9) (last visited June 12, 2004); Senate Bill 739 (Peace), Chapter 106, Statutes of 2001.
- <sup>7</sup> Pub. Util. Code Section 1801 *et seq.*
- <sup>8</sup> Pub. Util. Code Section 1801 *et seq.*
- <sup>9</sup> Interview with Yvette Hogue, executive director, SBC California Regulatory Affairs (June 11, 2004); interview with Audra Hartman, manager, California Government Affairs, Duke Energy North America (June 17, 2004).
- <sup>10</sup> Pub. Util. Code Section 1801.3.
- <sup>11</sup> Among the intervenors compensated in the 19 decisions were the Utility Reform Network, Greenlining Institute, Latino Issues Forum, and Utility Consumers Action Network. All represent the interests of ratepayers. The decisions were examined upon searching the PUC website for all decisions of any type issued during the period January 1–June 1, 2003, at <http://www.cpuc.ca.gov/cyberdocs/Libraries/WEBPUB/Common/decSearchDsp.asp> (last visited June 14, 2004).



# Building Standards Adoption Reform

## **Summary**

The state's process for approving building standards and selecting model codes is disjointed and lacks adequate oversight from the California Building Standards Commission. The state should develop a process for selecting a building "model code" that is based on objective criteria.

## **Background**

### **Building code background**

California's initial State Building Standards Law was enacted in 1953. As originally enacted, the law established the California Building Standards Commission (CBSC), with limited power over the state's process for promulgating building standards regulations.

All state regulations are published in the California Administrative Code. Prior to 1980, building standards were scattered across the state's 30,000 pages of administrative code. For example, regulations associated with the Occupational Safety and Health Act (OSHA) were located in title 8 and regulations authorized by the Health Code were in Title 17. Enforcement of the regulations was inconsistent, costly and, in some cases, nonexistent.<sup>1</sup>

To correct the problem and the resulting confusion, the Legislature enacted Senate Bill (SB) 331 in 1979.<sup>2</sup> SB 331 required CBSC to review and approve building standards regulations proposed by various state agencies before they could take effect. It also required all building regulations be placed in Title 24 of the California Code of Regulations, which CBSC is responsible for maintaining.<sup>3</sup>

Title 24 is a compilation of three types of building standards from three different origins:

- Building standards proposed by state agencies without change from building standards contained in national model codes and standards;
- Building standards contained in national model code standards that have been adapted to meet California conditions; and
- Building standards not covered by model codes but required by the Legislature, the majority of which address particular California concerns, such as the state's more stringent seismic and energy requirements.

There are several "model codes" for building standards published nationally by several independent organizations. Every three years, CBSC is required to review newly published model codes for potential selection. State agencies and the public draft proposed changes to the model codes and submit them to CBSC for consideration. The changes are reviewed in public meetings conducted by one or more CBSC advisory committees. These advisory

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committees, called “code advisory committees,” are comprised of members appointed by CBSC who represent various building standard stakeholders. CBSC selects one of the model codes to serve as the template for developing additional amendments to California’s building code. The amendments are added to the model code to become Title 24 of the California Code of Regulations.

***Commission has important responsibility, limited resources***

CBSC is responsible for administering California’s building codes, which includes adopting, approving, publishing, and implementing the state’s building codes and standards. The 11 members of CBSC are appointed by the Governor and confirmed by the state Senate. The Cabinet Secretary of the State and Consumer Services Agency, or the secretary’s representative, serves as CBSC Chair. Several positions on CBSC are designated for representatives of various sectors of the construction industry. For instance, one commissioner must be a local building official. Many of the remaining commissioner positions are designated for other professionals, such as licensed contractors, engineers and fire officials. Members serve four-year staggered terms and are not compensated, but are reimbursed for expenses.<sup>4</sup>

The CBSC has a staff of eight employees who serve in either executive or administrative positions.<sup>5</sup> The main duties of CBSC’s executive employees are to coordinate stakeholder groups and conduct CBSC meetings. The commission’s administrative employees ensure state agencies recommending changes to the code adhere to required processes, but they have limited financial, engineering, legal or architectural expertise. The Governor’s Budget for Fiscal Year 2004–2005 lists one of the eight positions as an associate architect and none as engineers, builders, lawyers, economists or other building industry-related professionals.<sup>6</sup> The lack of technical expertise among CBSC employees means CBSC must rely heavily on the expertise of state agencies for which it provides regulatory oversight.<sup>7</sup>

This lack of technical experience also has caused the commission’s regulatory oversight to be inefficient. An example of this is that the state’s model building code is still based on CBSC’s 1998 model code selection. Parts of this code are outdated and some of the national standards upon which it is based are no longer in print, causing delays in construction and uncertainty within the industry and enforcement agencies.<sup>8</sup>

***Commission process for selecting a model code is not objective***

There are no objective criteria in law governing CBSC’s process for adopting a model code for California. California building standards laws specify criteria for adopting code amendments. These laws and criteria could be used as a guide for developing criteria for adopting model codes.<sup>9</sup>

The CBSC’s lack of an objective process for adopting a model code became apparent during the selection of a new model code on July 29, 2003. The commission selected the National Fire Protection Association’s code, called the NFPA 5000, to serve as a template for California’s





model code. The CBSC made this decision after acknowledging problems and deficits associated with it and despite overwhelming opposition. Those opposing the decision included three of the four code-proposing state agencies and a coalition representing California building officials, hundreds of California municipalities, fire departments, code enforcement officials, and labor and professional organizations such as the American Institute of Architects, the Structural Engineers Association of California, and the Building Owners and Managers Association.<sup>10</sup>

The selection of NFPA 5000 is also questionable given its limited use as a model code elsewhere. The NFPA 5000 is used as a model code by only one other public entity in the nation: Pasadena, Texas, which has a population of 150,000.<sup>11</sup> The cost of developing state agency amendments to the NFPA 5000 and retraining every building department, architect, contractor and engineer in the state is expected to be substantial. State agencies are predicting they will not be able to finish drafting amendments until 2006 and the code will not go into effect until 2007, nearly nine years after the last model code selection.<sup>12</sup>

The rationale for the commission's decision to adopt the NFPA 5000 has been attributed to political influences. The *Los Angeles Times* and the *San Francisco Chronicle* reported CBSC's 2003 model code selection was tainted by accusations that it was for political reasons and not based on building science or objective criteria. They also reported the largest supporters of NFPA 5000 were the firefighters' union and the plumbers' union, which had contributed significantly to Governor Davis' unsuccessful recall campaign.<sup>13</sup> Additionally, the American Institute of Architects (AIA) noted that many of the commissioners who voted for the NFPA 5000 have or had relationships with NFPA and its partner, the International Association of Plumbing and Mechanical Officials. AIA summarized the vote as follows, "... the local building official position (on the Commission) is held by a plumbing inspector, the licensed contractor position is held by a plumbing contractor, a public position is held by a union lobbyist, and an engineer position is held by an individual with a long history of working with the NFPA. Joining with the labor and local fire official positions, this group formed the majority that supported the NFPA codes."<sup>14</sup>

### ***Agencies do not work together on code development***

The four state agencies that prepare building standards for the commission's review are the State Fire Marshal, the Division of the State Architect, the Department of Housing and Community Development and the Office of Statewide Health Planning and Development. Each entity develops code amendments independently. The process they use must comply with certain procedural requirements, but each agency has its own set of internal guidelines that also affect how they develop code amendments. These internal guidelines are based upon each agency's mission, strengths, weaknesses, stakeholders and leadership. This fractured approach to developing code amendments is inefficient and contributes to the state's inability to promulgate building codes.

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## **Recommendations**

- A. The Governor should work with the Legislature to eliminate the California Building Standards Commission and transfer all of its staff, authorities, budget and responsibilities to a new office within the State and Consumer Agency or its successor.**

This would restructure the state's process for promulgating building standards.

- B. The Governor should work with the Legislature to transfer the code development sections of the State Fire Marshal, the Division of the State Architect, the Department of Housing and Community Development and the Office of Statewide Health Planning and Development, or their successors, to the office established in recommendation A.**

This would ensure oversight for the building code development process is provided by employees who have sufficient technical knowledge. It would also consolidate the state's code-development functions, further insulating the process from political influences.

- C. The Governor should work with the Legislature to establish objective criteria and a process for selecting a model code for building standards for California.**

This would help to establish an objective process for adopting a model code based more on building science. The criteria established should be clearly defined so it can be used to effectively measure competing model codes to determine which is best for California. The criteria should be patterned after existing criteria used for building code amendment approval.

- D. The State and Consumer Services Agency, or its successor, should commission a study to determine the economic and industry impacts of selecting the National Fire Protection Association code known as the NFPA 5000, to be completed by June 2005. The study should make recommendations concerning the continued selection of the NFPA 5000, and whether or not the selection process should be re-opened.**

## **Fiscal Impact**

The consolidation of the Commission's staff and operations is intended to improve the effectiveness of the program. No fiscal impact is anticipated.



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## Endnotes

- <sup>1</sup> Building Standards Commission, "History," [http://www.bsc.ca.gov/abt\\_bsc/abt\\_hstry.html](http://www.bsc.ca.gov/abt_bsc/abt_hstry.html) (last visited June 5, 2004).
- <sup>2</sup> Senate Bill 331, Chapter 1152, Statutes of 1979 (Sacramento, California).
- <sup>3</sup> Building Standards Commission, "History."
- <sup>4</sup> Building Standards Commission, "History."
- <sup>5</sup> California Department of Finance, "2004–2005 Salaries and Wages Supplement," [http://www.documents.dgs.ca.gov/osp/salarywages04/pdf/1000\\_scs.pdf](http://www.documents.dgs.ca.gov/osp/salarywages04/pdf/1000_scs.pdf) (last visited May 20, 2004).
- <sup>6</sup> California Department of Finance, "2004–2005 Salaries and Wages Supplement."
- <sup>7</sup> Interview with Howard Smith, Division of the State Architect, Sacramento, California (March 30, 2004).
- <sup>8</sup> Interview with Howard Smith.
- <sup>9</sup> Interview with Howard Smith.
- <sup>10</sup> American Institute of Architects (AIA), "California Commission Votes to Support Use of NFPA Codes," by David S. Collins, <http://www.aia.org/gov/codes/nfpa.asp> (last visited May 20, 2004).
- <sup>11</sup> American Institute of Architects (AIA), "California Building Standards Commission Votes to Adopt NFPA Codes," by Kurt Cooknick, [http://www.aiacc.org/publications/focus/3\\_2/regulations.html](http://www.aiacc.org/publications/focus/3_2/regulations.html) (last visited May 20, 2004).
- <sup>12</sup> Interview with Howard Smith.
- <sup>13</sup> Robert Salladay, "Why State Firefighters Root for Governor," "San Francisco Chronicle" (July 10, 2003); and Nancy Vogel, "State's Choice of New Building and Fire Codes Angers Many Officials," "Los Angeles Times" (August 1, 2003).
- <sup>14</sup> American Institute of Architects (AIA), "California Building Standards Commission Votes to Adopt NFPA Codes."





# Shift Responsibility for Railroad Safety at Roadway Crossings to Caltrans

## **Summary**

The California Public Utilities Commission is statutorily responsible for prioritizing and approving projects that involve at-grade and separated-grade rail crossings of state and local roadways. The California Department of Transportation reviews and administers the project contracts. Overlapping responsibilities between Public Utilities Commission and Caltrans complicate the process for local agencies.

## **Background**

The Public Utilities Commission's (PUC) Highway-Rail Crossing Safety Branch oversees the safety of all public and private highway-rail crossings. PUC authorizes construction of new at-grade highway-rail crossings (where roads and tracks intersect at the same level) and construction of grade separations (underpasses or overheads where train tracks are above or below the roadway). PUC staff reviews proposals for crossings, investigates deficiencies of warning devices or other safety features at existing at-grade crossings and recommends engineering improvements to prevent accidents. Fifty railroad corporations operate within California, and there are about 11,000 public grade crossings located within 52 counties and 400 cities.<sup>1</sup>

Two programs fund at-grade crossings and grade separations. The Federal Highway Administration (FHWA) provides over \$10 million annually for at-grade crossing safety improvements. The state provides \$15 million from the State Highway Account (SHA) annually to fund grade separation projects. Before these funds are allocated, local agency projects must be reviewed and ranked by PUC and reviewed and authorized by the California Department of Transportation (Caltrans).

## **Federal funding for at-grade rail crossings (Section 130 program)**

Under Title 23, United States Code, Section 130, each state is required to maintain a survey of all highways to identify those railroad crossings that may require separation, relocation, or protection devices, and establish and implement a schedule of projects for this purpose. The FHWA is responsible for this program, but has delegated implementation responsibility to the states.

State law requires PUC to approve all new at-grade crossings and modifications to existing crossings, including rail crossings on state and local roadways. PUC staff identifies about

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100 crossings annually for review based on their hazard potential, using PUC's database to identify crossings with multiple accidents, as well as input from local agencies and railroads. After a diagnostic review, each crossing receives a priority ranking based on several factors, including the U.S. Department of Transportation (U.S. DOT) Accident Prediction Formula. PUC staff provides the final priority list of 20 to 30 crossings to Caltrans.<sup>2</sup>

Caltrans' Rail Crossing Safety & Track Branch reviews the list of eligible projects. Caltrans authorizes the local agencies to begin project development and obtain required funding. If all requirements are met, Caltrans enters into contracts with the railroads and local agencies to improve the crossings.<sup>3</sup>

***State funding for separated-grade rail crossings (Section 190 program)***

Under the California Streets and Highways Code Section 190, the grade separation program is funded by \$15 million annually from the State Highway Account. Every other year, the PUC issues an Order Instituting Investigation of potential grade separation projects. About 50–60 applications are filed by local agencies over the two-year period. According to PUC, the process has been streamlined so that if no problems or conflicts concerning potential impacts at the proposed sites are identified, the applications are reviewed and then approved. If conflicts are identified, an Administrative Law Judge (ALJ) is assigned and public hearings are held. According to PUC staff, this process is required for about 5 percent of the applications filed. The ALJ issues a decision and PUC adopts a final priority list that is then forwarded to Caltrans for review and processing. After review, Caltrans allocates the funds and administers the contracts.<sup>4</sup>

PUC's concerns are that the reviews should focus on safety considerations, safety considerations should drive the prioritization of the projects, and rail crossings at state and local roadways should be reviewed and approved by the same entity. PUC also indicated that the standards used at all rail crossings should be uniform.<sup>5</sup>

According to Caltrans staff, most agencies are not able to meet all of the statutory and regulatory requirements to receive an allocation of funds. The requirements are more complicated than the typical process for local project development and may preclude critical projects from being developed. This process could be streamlined by programming these funds in the State Transportation Improvement Plan (STIP) and the State Highway Operation and Protection Program (SHOPP), without requiring local agencies to meet the additional requirements for the rail crossing program.<sup>6</sup>

According to representatives of the Federal Railroad Administration (FRA), in most states the department of transportation assumes responsibility for the rail crossing program as well as the rail safety program. Apparently, only a few states (California, Ohio, and Illinois) require that a regulatory agency review and prioritize rail crossing improvement projects. According to the FRA, public utilities do not need to prioritize such projects. For example, the



transportation departments in North Carolina and New Hampshire use formulas for calculating the priority based on roadway and train traffic, vehicle speeds and accident history.<sup>7</sup>

The diagnostic survey, review of the applications and prioritization of the eligible projects under the Section 130 and 190 programs involve technical responsibilities that could be carried out by Caltrans technical staff, as they are by most other states. These responsibilities are less of a regulatory issue than a technical, engineering-based function, and should be transferred to Caltrans.

Caltrans, through STIP and SHOPP programs, identifies and prioritizes transportation improvement projects annually. Although PUC prioritizes the rail crossing projects, Caltrans is required to integrate the PUC priority lists into STIP and SHOPP programs before authorization and funding can be provided. The involvement of two agencies can result in duplication of effort and can add uncertainty or confusion for local agencies as well as extra time to complete the project. Caltrans staff has indicated that more than 50 percent of the projects placed on the current priority list were rejected for various reasons, including the inability to construct the project as recommended, as well as uncertainty on the part of the local agency and railroad as to final PUC recommendations.<sup>8</sup>

### ***Little Hoover Commission and others weigh in***

In 1996, the Little Hoover Commission (LHC) recommended in a report to the Governor that the Governor and the Legislature transfer PUC's rail planning and safety functions to the Business, Transportation and Housing Agency. In its discussion on rail safety, LHC indicated that multi-purpose regulation of the railroads is no longer a critical function of the PUC. It stated that the dual-agency coordination, review and prioritization of projects can slow the process.<sup>9</sup> In its report, LHC refers to a 1996 U.S. Department of Transportation (U.S. DOT) report entitled "Accidents That Shouldn't Happen," that identified a need to coordinate warning signal inspections, track and highway maintenance, and a need for better coordination in setting standards and designing highway-rail crossings. The U.S. DOT report states that railroad warning signals that "meet the standards" for rail inspectors might not adequately consider the demands of highway traffic, and traffic signals that seem adequate to highway engineers might pose problems for rail operation.<sup>10</sup>

According to a representative of the Los Angeles Economic Development Corporation, the rail crossing safety project process has been a source of significant problems over the past few years. Application approvals for new crossings have been taking six to eight months for uncontested matters and up to two years on crossings that are contested. The agency is concerned that reviewers do not always take into account the overall benefits of the project.<sup>11</sup>



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## **Recommendations**

- A. The Governor should work with the Legislature to shift (Section 130 program) responsibilities from the California Public Utilities Commission (PUC) to the California Department of Transportation, or its successor.**

These duties are to identify crossings needing improvements, and to review, approve, and prioritize the project applications for at-grade roadway-rail crossings. The allocated sum of \$10 million per year in the State Highway Account for this purpose would remain unchanged.

- B. The Governor should work with the Legislature to eliminate PUC's responsibilities for review, approval and prioritization of project applications for grade separation rail crossing projects (Section 190 program), and to amend the Streets and Highways Code to stipulate that such projects are to be implemented as a competitive process within the State Transportation Improvement Plan and the State Highway Operation and Protection Program.**

The allocated sum of \$15 million per year in the State Highway Account dedicated for this purpose would remain unchanged.

## **Fiscal Impact**

According to PUC's description of the Rail Crossings Engineering Section, 13 staff are responsible for the functions referred to in this proposal; eight are located in Los Angeles, two are located in San Francisco, and three are located in Sacramento.<sup>12</sup> In transferring the functions for the Section 130 and Section 190 programs from the PUC to Caltrans, 10 personnel years (PYs) will be transferred to Sacramento. Initially, there will be no net change in PYs.

During Fiscal Year 2005–2006, the relocation expenses for these employees are estimated to be a one-time cost of \$250,000. In addition, there will be \$53,000 in costs associated with moving the office operations to Sacramento.

### **Special Fund** (dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$0	\$303	(\$303)	0
2006–07	\$0	\$0	\$0	0
2007–08	\$0	\$0	\$0	0
2008–09	\$0	\$0	\$0	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.



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## Endnotes

- <sup>1</sup> California Public Utilities Commission, "Rail Safety," <http://www.cpuc.ca.gov/static/industry/transportation> (last visited April 24, 2004).
- <sup>2</sup> Interview with Richard Clark, director, Rail Safety Division, California Public Utilities Commission, San Francisco, California (May 14, 2004); and interview with George Elsmore, program manager, Railroad Safety Division, California Public Utilities Commission, San Francisco, California (May 17, 2004).
- <sup>3</sup> Interview with Steve Cates, chief, Rail Crossing Safety and Track Branch, California Department of Transportation, Sacramento, California (April 22, 2004 and May 15, 2004).
- <sup>4</sup> Interview with the Richard Clark and George Elsmore.
- <sup>5</sup> Interview with the Richard Clark and George Elsmore.
- <sup>6</sup> Interview with Steve Cates.
- <sup>7</sup> Interview with Mike Calhoun, transportation safety program specialist, Federal Railroad Administration, Washington, D.C. (April 28, 2004, May 17, 2004 and May 18, 2004); and interview with Brian Gilleran, grading crossing engineer, Federal Railroad Administration, Washington, D.C. (June 7, 2004).
- <sup>8</sup> Interview with Steve Cates.
- <sup>9</sup> Little Hoover Commission, "The State's Role in Competitive Utility Markets, Rail Safety Section" (Sacramento, California, December 1996), <http://www.lhc.ca.gov/llhcdir/139/trans2.html> (last visited June 7, 2004).
- <sup>10</sup> U.S. Department of Transportation, "Accidents That Shouldn't Happen: A Report of the Grade Crossing Safety Task Force to Secretary Federico Pena" (March 1, 1996), p. 9.
- <sup>11</sup> Interview with William R. Schulte, Los Angeles Economic Development Corporation, Los Angeles, California (June 4, 2004).
- <sup>12</sup> California Public Utilities Commission, "Rail Crossings Engineering," <http://www.cpuc.ca.gov/static/industry/transportation/crossings/index.htm> (last visited June 4, 2004).





# Water, Parks and Wildlife Bond Implementation is Inefficient

## **Summary**

High overhead and administrative costs impact the effectiveness of water, parks and wildlife bond programs. Consolidating the administration of these programs would lower their administrative costs and increase their efficiency.

## **Background**

Since 1970, California voters have passed 14 major bond acts to provide clean water and 11 major bond acts to provide for parks and recreation. Water, parks and wildlife enhancement are important amenities that keep California an enviable place to work and play. It is important for state agencies entrusted with managing these bond programs to manage them objectively, fairly and appropriately, and to disperse the funds as expeditiously as possible. The bond programs' structures, however, have made this a complicated task.

The bond initiatives have provided funding for distribution to local, state and federal government agencies, non-profit entities, and sometimes, for-profit entities for specific projects and programs. In the last several park bond and water bond initiatives, authors assigned the administration of the grant aspects to several state agencies. For example, Propositions 12, 13, 40, and 50 have been simultaneously implemented over the last several years. Aspects of Propositions 12 and 13 that deal with competitive grant programs were distributed among 15 departments in three different agencies. Propositions 40 and 50 are similarly delegated to a subset of these agencies. Proposition 50, for example, has 21 separate elements delegated among 15 department/agencies.<sup>1</sup> This has led agencies to either re-direct existing resources, or establish new entities to administer these programs.

Implementation and administration of these propositions typically requires the work of multiple divisions within a department with experienced staff in the areas of competitive grant implementation including contracting, proposal solicitation, proposal review, contract management and contract auditing. Grant management is redundant and duplicated among and within the responsible agencies. Figure 1 illustrates a generic grant administration process.<sup>2</sup>

The agencies and departments are required to individually and collectively determine which entity has what piece of the bond program, how the money flows and which entity has overall accountability. This can take months to establish and then each individual process (billing, proposal, disbursement, claims, etc.) goes through extensive legal and policy review within the

## Grants Process

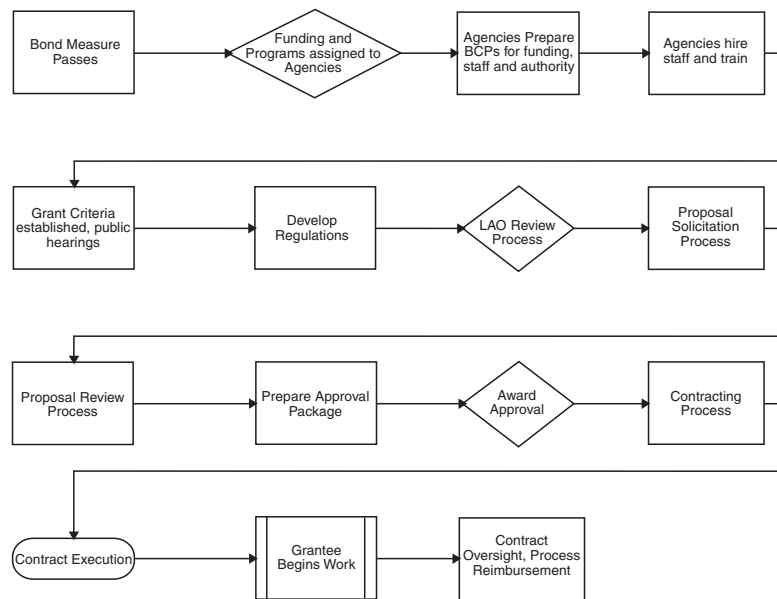


Figure 1

departments, the Resources Agency or California Environmental Protection Agency, the Bay-Delta Authority, and the Department of General Services. The process is so lengthy and fraught with policy shifts and inconsistent guidance, that the annual fund appropriation deadlines can be missed altogether, causing a further delay in awarding grants.<sup>3</sup>

These inefficiencies and duplication of effort also affect the amount of funds ultimately distributed. As specified in the bond measures, administrative costs are subtracted from the bond funds as actual costs. Therefore, every dollar spent on administration is a dollar less spent on a project. This is of particular concern as some chapters of Proposition 50 contain a cap on the administrative costs.<sup>4</sup>

The State Water Resources Control Board (SWRCB) has taken a different approach by consolidating \$138 million in grants in a single proposal solicitation process among its related grant programs, including Proposition 50 Drinking Water Quality, Proposition 13 Drinking



Water Quality, Proposition 50 Watershed, and Proposition 13 Watershed. This consolidated process and organization has allowed the most technically sound proposals to be awarded grants on an accelerated time scale of ten months.<sup>5</sup> The SWRCB's approach demonstrates efficiencies can be realized by consolidating grant administration within a single agency, and could serve as a model. It further demonstrates if one agency contained a single division permanently devoted to grant administration that all the agencies could utilize, then it would not be necessary to start up a new self-contained grant unit for each element of a bond program. This would save considerable time at the beginning of the process, and lower administrative costs by eliminating duplication of effort.

The SWRCB approach is consistent with findings from the Legislative Analyst's Office (LAO). The LAO has written four papers on the need to improve the administration of these bond programs. The LAO has recommended that lead agencies be designated to coordinate implementation of the bond funded programs and that administrative costs should be monitored.<sup>6</sup>

More water bonds are inevitable due to the large backlog of needed water infrastructure projects in California. California's recent history of passing bond measures for these purposes is every two to four years. Several bills to authorize new water bonds are before the Legislature. It is important for California to centralize and coordinate the administration of these bond programs.

### **Recommendations**

- A. The Governor should direct the Secretaries for Resources, Health and Human Services and Environmental Protection, or their successors, to centralize the policy and administration of the grant program aspects of the existing Proposition 50, 40, 13 and 12 programs into a single division within the Resources Agency, or its successor.**
- B. The Secretaries for Resources, Health and Human Services and Environmental Protection, or their successors, should direct the departments with technical expertise in the various areas that are named in the various bond initiatives to loan staff to the newly created division to assist in setting criteria and reviewing proposals. Staff would be funded by the bonds' administrative funds.**

The division will be responsible for grant administration for all of the bond initiatives related to water quality, water supply, and parks and recreation. This service would be provided to all applicable agencies and departments. The division will require staff with appropriate legal, financial, accounting and contracting expertise. Funding for the division is available from the bonds' administrative funds. Staff for this new division could be redirected from the staff in the various agencies and departments currently performing these functions.

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### **Fiscal Impact**

Experience at the SWRCB has shown the programs can be accelerated by six to 12 months when consolidation occurs. The cost to administer separate grant programs will also be reduced by at least 15 percent due to efficiencies of centralization. Having a permanent division will reduce startup and training needs as new bonds are established. If five to seven percent of the bonds funds are currently spent on administration, 0.75 to 1.05 percent of the bond funds would be saved due to consolidation which would leave that amount in additional bond funds available for distribution into communities. For example, in Chapter 8 of Proposition 50 alone, the amount saved would be \$1.9 to \$2.6 million. It would also be likely that personnel year (PY) savings could amount to at least 15 percent.

There are \$3.0 billion in bonds for water-related and land acquisition bond programs left for distribution. A savings of \$22 million could be realized through consolidation of these programs. Assuming each program covers a six-year period, the average savings would be \$3.7 million, which would equate to 37 PYs if each PY and associated operating expenses and equipment (OE&E) is rounded to \$100,000.

#### **Bond Revenue Fund** (dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$3,700	\$0	\$3,700	(37)
2006–07	\$3,700	\$0	\$3,700	(37)
2007–08	\$3,700	\$0	\$3,700	(37)
2008–09	\$3,700	\$0	\$3,700	(37)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

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### **Endnotes**

- <sup>1</sup> *Water Security, Clean Water, Coastal and Beach Protection Act of 2002, Water Code Division 26.5.*
- <sup>2</sup> *Memorandum from Mark Cowin, division chief, Planning and Local Assistance, Department of Water Resources to Barbara McDonnell, California Performance Review (May 3, 1004).*
- <sup>3</sup> *Interview with Marsha Prillwitz, chief, Water Use Efficiency, Department of Water Resources, Sacramento, California (March 17, 2004).*
- <sup>4</sup> *Interview with Mark Meeks, Division of Planning and Local Assistance, Department of Water Resources, Sacramento, California (March 17, 2004).*
- <sup>5</sup> *E-mail from Tim Ramirez, California Bay-Delta Authority to Barbara McDonnell (March 25, 2004).*





- <sup>6</sup> *Legislative Analysts Office, "2003–04 Budget Overview: Proposition 50 Bond Expenditures and the CALFED Bay-Delta Program" (Sacramento, California, April 3, 2003); Legislative Analyst's Office, "Analysis of the 2003–04 Budget Bill CALFED Bay-Delta Program," (Sacramento, California, 2003); Legislative Analyst's Office, "Enhancing Implementation and Oversight: Proposition 40 Resources Bond," (Sacramento, California, May 7, 2002); and Legislative Analyst's Office, "Analysis of the 2003–04 Budget Bill Proposition 50 Water Related Proposals Need Better Definition," (Sacramento, California, 2003).*

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# Flood Disaster Avoidance

## **Summary**

The state is facing significant expenditures in the future to repair levees, handle flood emergencies and compensate flood victims. To minimize future emergency and disaster relief expenditures, the state needs to prepare a realistic strategy and financial plan for dealing with its aging flood control infrastructure and the needs of a growing population and economy.

## **Background**

Flood emergencies are a recurring phenomenon in California due to geography and climate. California has a significant disparity in rainfall between the northern and southern regions, with a maximum average annual rainfall in the north reaching 100 inches compared to a minimum of only two inches in the south.<sup>1</sup> The Sacramento-San Joaquin Rivers in northern and central California form the nation's third largest river system. Although this system of waterways provides much of the water to the drier parts of the state, it also has a huge potential for flooding. The state has developed both a major flood control system to channel flood flows, as well as a water supply project to serve municipal and agricultural customers in Central and Southern California. The federal government has also developed a major water supply project within this system to serve irrigation customers in the central part of the state. Effective flood control is necessary to protect life, property, and the quality and quantity of the water supply projects.

In January 1997, one of the most extensive and costly of California's floods resulted in declarations of disaster in 48 out of the 58 counties. Nine people were killed, 120,000 people were evacuated, 23,000 homes were damaged and roads, bridges and business suffered damages. The indirect and direct costs of the flood were estimated at \$7 billion. Following this flood, the Governor's Office created the Flood Emergency Action Team, which led to the formation of the Floodplain Management Task Force.<sup>2</sup>

There have been three reports in the last 10 years focusing on flood control in California. Each recommended actions to reduce the risk of floods to landowners, communities and the state. The first, published in 1997, was the final report of the Flood Emergency Action Team.<sup>3</sup> The second was the final report of the Floodplain Management Task Force.<sup>4</sup> These two reports detail the problems California faces in managing the risk of floods and flood damage and list numerous recommendations to reduce the risks. The third report, released by the Legislative Analyst's Office, recommended that the state focus investments on critical flood plain management activities, including restoring funding that had been reduced from \$27 million in Fiscal Year 2002–2003 to \$13.6 million in the proposed FY 2004–2005 budget.<sup>5</sup> The report recommends that state cost share funding be reduced on federally authorized flood control

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projects from 50–70 percent to 30 percent, although reimbursement could be higher for projects with multiple benefits.

### ***Flood control system***

The Department of Water Resources (DWR) is responsible for major flood control facilities in the Central Valley region of the state. Its flood control responsibilities include a wide range of activities designed to examine, manage and control flood waters in cooperation with the federal government and local agencies. DWR reviews flood plain management plans of local agencies, makes necessary hydrologic studies and investigations, and approves flood plain regulations adopted by local agencies.

The DWR is responsible for maintaining over 300,000 acres of flood conveyance channels, 316 miles of levees, four pump stations, and 11 flow control structures within the Sacramento River Flood Control Project and the San Joaquin River Flood Control System.<sup>6</sup> The General Fund supports construction and maintenance projects for these portions of the Central Valley flood control system.

The system is currently in varying stages of disrepair and maintenance has been deferred on significant portions of it. In addition, not all of the levee system was constructed to today's engineering standards. Nevertheless, people in communities protected by these levee systems generally assume that the levees are of modern construction and will provide full protection during floods. There is a pressing need to upgrade and maintain the system as well as to educate the public about the risks of levee failure. Unfortunately, state funding to perform these necessary tasks is inadequate. The DWR estimates that it needs \$160 million for necessary repairs over the next five years to bring the system up to a safe level.<sup>7</sup>

The DWR manages additional levees and flood control systems as well.<sup>8</sup> These are areas that fall under state control when local agencies (Local Maintaining Agencies or LMAs) are not maintaining the system in conformance with federal standards, or the state has made assurances to the federal government that the obligations would be met. In these cases, the state Reclamation Board or DWR forms maintenance areas and collects assessments from the benefiting landowners. Although DWR is able to recover its costs, the expanded responsibilities require additional staff to take on this extra maintenance.

Local agencies are finding it increasingly difficult to maintain their levees and other flood control infrastructures due to increased potential liability issues, increasingly stringent environmental compliance requirements, rising costs of labor and materials, and limitations on their ability to raise taxes to cover these costs. Recently, LMA's in Santa Cruz and San Luis Obispo Counties have adopted resolutions relinquishing maintenance of some of their flood control projects.<sup>9</sup>



Delta levees provide unique flood control issues. These levees were constructed to form islands in the area of the confluence of the Sacramento and San Joaquin rivers. The islands provide important agricultural land and also help keep salt water out of the areas where the major water projects take their water supplies. Although the maintenance of these levees is a responsibility of local reclamation districts, the state partially reimburses the reclamation districts for 75 percent of its maintenance expenses, as funding allows. The DWR and the California Bay-Delta Authority (CBDA) have Delta levee programs to improve flood protection, emergency response, maintenance and rehabilitation of the Delta. The state may also provide emergency relief funding when levee breaks cause economic hardship to landowners. The CBDA is seeking funding options in addition to that which is available from Proposition 50 (\$40 million total funding for levees) and the General Fund to meet a projected annual expenditure need for Delta levees that ranges from \$41 million to \$74 million.<sup>10</sup>

Failure of Delta levees would have a serious consequence for the major water supply systems of the state because sea water intrusion into the Delta increases as islands flood from levee failures. Sea water brings sea salts that combine with Delta carbon sources to form potential cancer causing substances. Urban water purveyors are very concerned about this potential problem. This problem was illustrated on June 3, 2004, when a sudden levee break occurred on Jones Tract in the Delta. The state and federal water projects immediately shut down almost all pumping of water from the Delta to avoid pumping water that would pollute the state's drinking water supply to over 22 million Californians.<sup>11</sup>

### ***Development in flood plains***

During the last 20 years, local, state and federal agencies have begun to realize the importance of flood plains for native habitat values. In the Central Valley, flood plain and riparian habitat are some of the most productive land for wildlife and fishery values. Fish and wildlife agencies are opposed to traditional flood control practices which armor banks and remove vegetation. Therefore, interagency conflicts arise if flood plain management and flood control are not planned to also benefit fish and wildlife values. The DWR and the CBDA recognize that fish and wildlife habitat improvements are an important component of the Delta levees program.

Urbanization and road-building within watersheds cause adverse changes in the timing and magnitude of flood events. Potential global warming scenarios exacerbate the stress on the levee and flood control system in the state as the magnitude and timing of precipitation and runoff changes.<sup>12</sup> If the experts are correct, California would experience increased temperatures leading to less snow and increased melting at lower elevations. This will increase the yearly high flows in Central Valley Rivers. In that event, levees that were previously rated to provide 100-year protection will provide much less protection as a result of these changes.

It is important for the state and local agencies to keep flood plain mapping up to date as these changes occur. DWR or its successor agency needs \$3 million per year for five years to participate in the Federal Emergency Management Agency's National Map Modernization

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Program. The state would gain \$12 million in federal funding through this program. Additionally, DWR's Awareness Mapping program provides a low cost web-based tool for rapidly mapping flood prone areas at risk of development over the next decade. However, this program is currently under-funded. About \$800,000 in General Fund expenditures per year is necessary to maintain web access and complete awareness mapping for 20,000 miles of streams over the next 10 years.<sup>13</sup>

Because a major flood is an unpredictable and relatively infrequent occurrence, people living in flood plains tend to disregard the severe consequences to life and property that result from major flood events and continue to build and rebuild in flood plains between major events. Nationwide, so-called repetitive loss properties, which are properties where multiple claims have been filed for flood losses, are a significant problem. California ranks ninth nationally for having the most repetitive losses.<sup>14</sup>

As cities grow, flood plains are increasingly targeted by local governments to locate new civic developments close to urban areas. In areas that have been mapped by the National Flood Insurance Program, mortgage lenders are required to have mortgagors obtain National Flood Insurance. This insurance need not be obtained if the property owner is a public entity, such as school districts, or if there is no mortgage on the structure that lies within the federally mapped area. In addition, flood plain mapping must be kept current because hydrology changes on a regular basis due to upstream development and other factors. Flood plain mapping is falling behind in California due to lack of state matching funds for available federal funds.

State agencies are also prone to ignore the risks of building in flood plains. California's current policies for building state facilities within flood plains have not been updated for 25 years and do not reflect the current knowledge of risks associated with building in flood plains. State policy is embodied in a Governor's Executive Order for flood plain management that was signed in 1977. The Federal Emergency Management Agency has stated that this executive order does not bring the state into compliance with the National Flood Insurance Program, which could cause the state and local jurisdictions to lose the ability to participate in Federal Emergency Management Agency programs and receive disaster recovery funds.<sup>15</sup>

### ***Flood fight activities***

Flood warning programs, including real-time flood risk information, are not available for all areas of the state. The lack of warning programs can delay evacuation and flood fighting in the case of floods, and lead to loss of life and property. The state has provided local assistance funding in the past, but not at a level sufficient to cover all areas of the state. The state's ability to fight floods is also hampered by aging and outdated equipment. With the invention of Geographical Information Systems, real-time monitoring of remote gauging stations can lead to improvements in the data that is available for monitoring floods. State and local agencies'



ability to provide flood warning depends on improving the on-the-ground technology that is available. Also, training of state and local personnel through periodic flood simulation exercises can improve flood fighting capability.<sup>16</sup>

### ***Liability***

The floods of 1986 caused a levee failure that flooded the town of Linda and other nearby towns in Yuba County. The Third District Court of Appeal found that DWR had been informed by the local reclamation district that the Feather River levee was built on unstable mining debris, but that DWR did not act promptly to correct the problem.<sup>17</sup> In 2004, the California Supreme Court let this ruling stand, which means that the state is responsible for paying hundreds of millions of dollars in claims plus interest and attorneys' fees.<sup>18</sup> According to the claims, 150 businesses and 3,000 homes were destroyed or damaged in the flood. This judgment imposed a much broader financial responsibility on the state for levee failures than had previously been assumed, and this financial responsibility is met by the General Fund. The Governor's May Revision budget contains an item that increases the Department of Justice budget by \$1.5 million and adds 9.4 positions to handle claims from both the 1986 and 1997 floods.

### ***Financing***

The General Fund financing for programs that reduce flood risks increases in relationship to major flood events. The last major event was in 1997. Following the floods of 1997, the Legislature increased the funding for flood control programs; however, funding declined dramatically as time passed and the current budget crisis required overall cuts in General Fund expenditures. Currently, there is neither sufficient budget nor staff to carry out the basic elements of the program. Program managers do not know whether sufficient resources are available to handle even basic emergency purposes in the event of a major flood occurrence.<sup>19</sup> This inconsistent budgeting leaves the state with an unacceptable risk of loss of life and property and potential exposure to liability for these losses.

The CBDA Delta Levee System Integrity Program is also inadequately funded. CBDA has released a draft report on financing options. CBDA intends to secure additional funding in the future to bring the annual financing from the current funding of \$10 million per year up to between \$41 million and \$74 million annually. CBDA has identified the beneficiaries of the levees and will be allocating costs proportionately. Thus, a combination of General Fund financing, debt financing, federal funding, local funding, or user fees for water supply and recreation benefits may be necessary to close the funding gap.<sup>20</sup>

### ***Recommendations***

- A. The Governor should direct the Department of Water Resources, or its successor, to develop a new strategy and financing mechanism to manage the state's responsibility for flood control infrastructure, and to carry out the recommendations of the Floodplain Management Task Force.**



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- B. The Department of Water Resources, or its successor, should continue to enhance programs and incentives to reduce the amount of building in designated floodways and flood plains and to educate the local communities about the hazards of ignoring flood potential.**
  - C. The Secretary of Resources, or his or her successor, should reaffirm, through funding and regulatory decisions, state policy that flood plains are appropriate for greenbelts, parks, open space and fish and wildlife habitat.**

Flood control projects should be undertaken in conjunction with environmental restoration efforts because flood plains are one of the most productive types of habitat in the state. The policy should also reiterate that state-owned developments should not be allowed in flood plains unless they meet strict building requirements, and that the State Board of Education should follow this policy when approving school sites.

- D. The California Bay-Delta Authority should specify that priority will be given to projects that incorporate multi-purposes, including set-back levees or levee rehabilitation for flood protection in conjunction with habitat restoration, as soon as practicable.**

This would allow existing funding to be used to help maintain the critical levee infrastructure of the Delta.

- E. The Department of Water Resources, or its successor, should expand the availability of other web-based, flood risk mapping and display tools to public and local decision-makers. State matching funds should be provided where there are federal funds available. There are funds available from the Federal Emergency Management Agency for flood plain mapping under the five-year National Map Modernization Program.**

This would give local agencies up-to-date, easy to use flood risk information to help guide land use planning. This would go a long way toward reducing unwanted flood plain development and hence reduce the state liability in the long term.

### ***Fiscal Impact***

Funding for management of the state's flood control infrastructure is dependent on DWR revising its financing mechanism and strategy. The policy changes recommended are anticipated to require a shift in existing funding allocations, and possibly additional allocations to ensure that existing levy structures will meet present standards. However, the anticipated level of funding and effect of reprioritization is unknown, and is dependent on the final policy and strategic reprioritizations as recommended. Policy reprioritization could allow existing



funding to be used to help maintain the critical levee infrastructure of the Delta. Through an annual expenditure of \$3 million, for example, the state will gain a federal match of \$12 million for flood plain mapping.

**Federal Funds**  
(dollars in thousands)

Fiscal Year	Revenue	Costs	Net Revenue	Change in PYs
2004–05	\$0	\$0	\$0	0
2005–06	\$12,000	\$0	\$12,000	0
2006–07	\$12,000	\$0	\$12,000	0
2007–08	\$12,000	\$0	\$12,000	0
2008–09	\$12,000	\$0	\$12,000	0

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

## Endnotes

- <sup>1</sup> California Department of Water Resources, "Management of the California State Water Project" (Sacramento, California, January 2004), p. 3.
- <sup>2</sup> California Department of Water Resources, "Final Report of the Floodplain Management Task Force" (Sacramento, California, December 2002), p. 19.
- <sup>3</sup> California Department of Water Resources, "Final Report: Flood Emergency Action Team" (Sacramento, California, June 1997).
- <sup>4</sup> California Department of Water Resources, "Final Report of the California Floodplain Management Task Force," pp. 1–97.
- <sup>5</sup> Legislative Analyst's Office, "Analysis of the 2004–05 Budget Bill, Department of Water Resources (3860)" (Sacramento, California, February 2004).
- <sup>6</sup> California Water Code Section 8361.
- <sup>7</sup> E-mail from Stein Buer, division chief, Flood Management, Department of Water Resources, to the California Performance Review, Sacramento, California (May 21, 2004).
- <sup>8</sup> California Water Code Sections 12878–12878.45.
- <sup>9</sup> Memorandum from Stein Buer, division chief, Flood Management, Department of Water Resources, to the California Performance Review, Sacramento, California (March 16, 2004).
- <sup>10</sup> California Bay-Delta Authority, "Draft Finance Options Report" (Sacramento, California, April 2004), p. 63.
- <sup>11</sup> "State Water Officials Turn Off Pumps," *Contra Costa Times* (June 4, 2004).

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- <sup>12</sup> Norman Miller, Kathy Bashford and Eric Strem, "Potential Impacts of Climate Change on California Hydrology," *"American Water Works Association"* (August 2003), pp. 771–784.
- <sup>13</sup> Interview with Stein Buer, Sacramento, California (April 13, 2004).
- <sup>14</sup> William O. Jenkins, director of Homeland Security and Justice Issues. Testimony before the Subcommittee on Economic Policy, Committee on Banking, Housing, and Urban Affairs, U.S. Senate (Washington, D.C., March 2004).
- <sup>15</sup> California Department of Water Resources, "Final Report of the Floodplain Management Task Force," p. 26.
- <sup>16</sup> California Department of Water Resources, "Final Report of the Floodplain Management Task Force," p. 33.
- <sup>17</sup> 113 Cal.App.4th 998 (2003) as Modified on Denial of Rehearing December 24, 2003.
- <sup>18</sup> 113 Cal.App.4th 998 (2003) as Modified on Denial of Rehearing December 24, 2003, Review Denied, March 17, 2004.
- <sup>19</sup> Memorandum Report from Stein Buer, to Jonas Minton, deputy director, California Department of Water Resources, Sacramento, California (May 13, 2003).
- <sup>20</sup> California Bay-Delta Authority, "Draft Finance Options Report," pp. 246–268.



# Release State Departments from the Real Estate Services Monopoly

## **Summary**

The state's real property purchasing, leasing, management, construction, maintenance and operations processes are more costly and time consuming than the private sector. Increasing agency and program responsibility and accountability by removing existing barriers, such as the Department of General Services' real estate service monopoly, would improve program delivery and reduce costs.

## **Background**

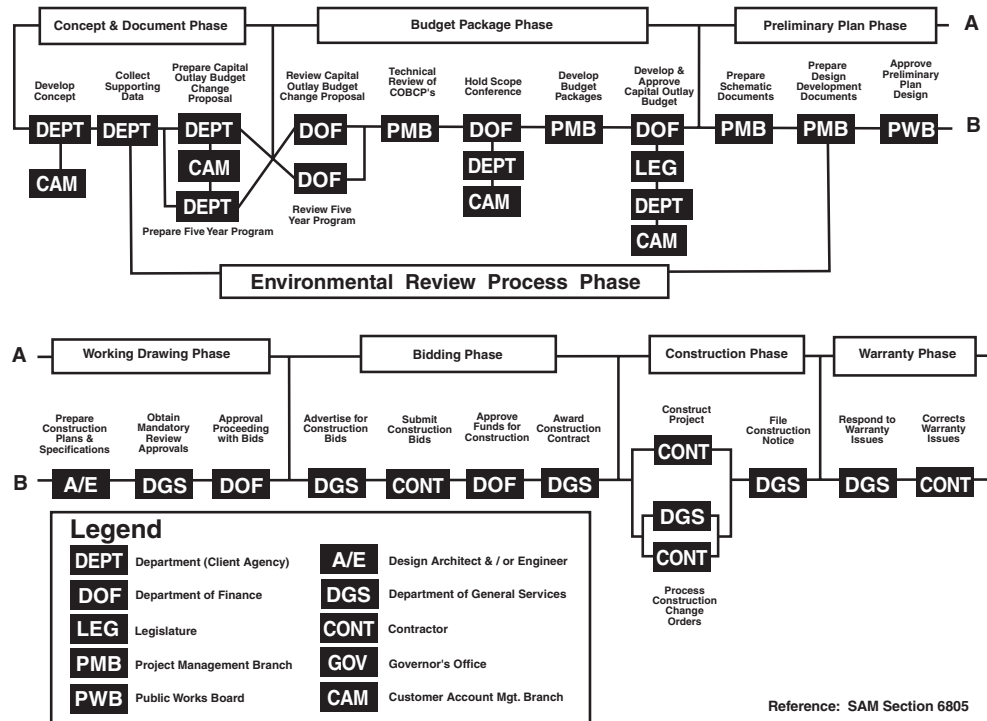
Government Code Section 14685 empowers the Department of General Services (DGS) to meet the real estate needs of other state agencies, effectively establishing a monopoly on state real estate services. Functions performed by DGS on behalf of other state agencies are subject to the approval of the Public Works Board (PWB). Over the years, DGS and PWB have delegated authority to several agencies performing various real estate functions themselves, including the University of California, the California State Universities, the Public Employees Retirement System, the State Teachers Retirement System, district fairs and expositions (county fairs), California State Fair, Administrative Office of the Courts, the departments of Corrections, Transportation, Parks & Recreation, Forestry and the California Lottery.

## **Costs of monopoly controls**

With a monopoly on real estate services, DGS has developed burdensome processes and procedures which increase the time and cost of performing a broad array of real estate functions, such as leasing, facility management and construction. Exhibit 1 shows a simplified flow diagram illustrating the existing capital outlay project process. It demonstrates the repetitive approvals and processes that make the existing project framework inefficient and time consuming. Principally due to these procedural hurdles, the average time to complete a large building construction project in state government is nearly three times as long as in the private sector, or nine years versus three.<sup>1</sup>

Exhibit 2 compares state construction and operation costs with those of the private sector. For the construction cost comparison, materials and labor costs are similar, land cost was left out, and tenant improvements were roughly equal. Operation and maintenance data from the Building Owners and Managers Association (BOMA) indicate that it costs roughly one-third of the amount DGS charges to provide real property management services in the private sector.

## Exhibit 1 Simplified Flow Diagram • Capital Outlay Process



## Exhibit 2 Relative Cost of DGS Real Estate Services versus the Private Sector

Service	Private Sector Rates/BOMA	DGS Rates
Operation & Maintenance	\$8.50/sq.ft.-yr <sup>2</sup>	\$27.68/sq.ft.-yr <sup>3</sup>
Construction	\$267/GSF <sup>4</sup>	\$340/GSF <sup>5</sup>

The difference in the cost of operating and maintaining buildings can be attributed to a number of things. There are numerous items inserted into DGS's budget for items unrelated to delivery of real estate services, including the Capitol building and grounds, the Legislature's printing budget, bond debt service for various buildings, some Governor's office and Legislative staff space, and the Department of Rehabilitation's Business Enterprise Program.



Agencies caught in the monopoly systems for delivering real estate projects, including planning, funding, land acquisition, design, construction, operation and management suffer from a separation of authority and responsibility. DGS and PWB exercise a great deal of authority over other agencies' programs, yet have little or no accountability for program delivery. Furthermore, these control agencies lack incentives for effective and timely delivery of results, which decreases customer service and the overall quality of the product. This is documented in the 2001 and 2003 customer satisfaction surveys compiled by DGS's Real Estate Services Division: "Customers thought that their service requests were not addressed in a timely fashion, projects did not start in a reasonable time and were not delivered on schedule."<sup>6</sup> In 2003, only 32 percent of respondents agreed that their projects were delivered on schedule and only 35 percent agreed that their projects were delivered on budget.<sup>7</sup>

Removing this monopoly and its procedures will decrease the cost of state real estate functions and increase customer service levels by making DGS more responsive to the client agencies through external competition. The American Legislative Exchange Council and the Manhattan Institute for Policy Research found that "... the best way to realize the benefits of competition is to allow service recipients to choose their own providers. In addition to providing greater freedom, choice-based programs bring consumer pressure to bear, creating incentives for people to shop around for services and for service providers to supply high-quality services at low costs."<sup>8</sup> This report found savings from past competitive government programs in cities, counties, and smaller states ranging from \$17 million to \$50 million.

### ***Delegated real estate authorities***

Delegating selected real estate functions to departments allows each department to exert increased responsibility and accountability by tailoring real estate to meet the specific needs of individual programs and functions. This can result in specific real estate competencies in departments that equal or exceed those provided by DGS.

This dynamic is evidenced by the Department of Parks and Recreation's (DPR) delegated authority to manage its own construction projects. In its "Analysis of the 2004–05 Budget," the Legislative Analyst's Office compares DPR's function to DGS's services and finds that DPR's project management ability is comparable to DGS in all respects analyzed, and DPR has "developed and implemented several improvements that enhance its overall project management ability." Based on this positive assessment, the Legislative Analyst's Office recommends extending DPR's authority to manage construction projects beyond its original sunset date of January 2005.<sup>9</sup>

The federal government has loosened its mandate for the General Services Administration to provide leasing and now allows federal agencies to procure leasing services independent of the General Services Administration.<sup>10</sup> California should follow suit and remove the DGS monopoly on real estate services. Agencies and departments would be able to go directly to pre-approved service providers such as qualified brokerage and space planning firms. This

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delegation in project delivery authority would require oversight to ensure compliance with statewide policies. Removing the mandate for leasing, purchasing, and other business service functions through a control agency and putting it into the hands of those responsible for program delivery would help focus the accountability for programs back with the program managers as well as improve the quality of those services.

### ***Establish performance measures***

Departments that were delegated authority would still be subject to the policies and laws pertaining to real estate management. Evaluating and establishing appropriate performance measures and fiscal controls is important in maintaining the overall quality and standard of real estate services even when delegated to individual departments. Since existing real estate policies and constraints focus primarily on contracting, bidding and legal requirements, the state would need to develop additional fiscal analyses and accounting measures.

Executive Order S-10-04 calls for an inventory and analysis of real property assets, and possible realignment or disposition of those assets through a single entity. This would appear to be a move away from competitive government and towards central control of the state's real estate portfolio. Although these steps will be taken within the existing system, they will establish a baseline from which suitable delegations and strategies can be enacted.

### ***Recommendation***

**The Department of General Services or its successor should delegate certain real estate authorities to all departments by June 1, 2005, allowing them to choose their real estate service providers from a selection of preapproved internal or external organizations.**

This delegation of authority should be tailored to certain departments following the establishment of types and fiscal thresholds for functions to be delegated. This includes evaluating long-term infrastructure issues, performing strategic analyses, establishing fiscal benchmarks and overseeing audits of agencies and departments to ensure compliance with such performance benchmarks and policies. This should be done by a group of experienced real estate professionals convened by the Governor in the latter half of 2004.

### ***Fiscal Impact***

Savings estimates from removing the monopoly of real estate services will be realized from two activities: property management services and real estate construction.

Savings for property management were calculated by taking the total square footage of space currently managed and multiplying by the difference in cost between the state and that of comparable services provided by the private sector. The result was reduced by 20 percent to account for some state program managers choosing the state-provided service even though it is more expensive. The added convenience and need for in-house expertise to monitor contractors would be possible reasons why managers might pick the more expensive choice.





Savings for construction were estimated by taking the average cost per square foot of buildings constructed over the last five years and subtracting the cost of similar buildings built by private developers. The resulting cost per square foot difference was then applied to the average square footage per year being constructed to arrive at a total savings. The two components were then added together and phased in over three years. Hard savings are assumed to begin in Fiscal Year 2005–2006.

According to the 2004–2005 Governor’s Budget, Salary and Wages Supplement, there are over 1,000 PYs involved with real estate services. PY reductions reflect an assumed total reduction of 3 percent in staffing for real estate services after four years.

In order for DGS to compete effectively, unrelated overhead items will presumably be removed from its billing rates. “Costs” in this analysis were included as a conservative factor, assuming that half of the overhead items currently in the DGS budget do not get eliminated, but rather re-emerge somewhere else in the budget.

These estimates do not include value that might derive from faster project delivery, the effect that improved services have on the programs they serve, or any effects from the improved accountability.

**General Fund**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs</b>
2004–05	\$0	\$0	\$0	0
2005–06	\$57,000	\$9,500	\$47,500	0
2006–07	\$114,000	\$19,000	\$95,000	(7.5)
2007–08	\$171,500	\$38,000	\$133,500	(15)
2008–09	\$171,500	\$38,000	\$133,500	(15)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from Fiscal Year 2003–2004 expenditures, revenues and PYs.

**Other Funds**  
(dollars in thousands)

<b>Fiscal Year</b>	<b>Savings</b>	<b>Costs</b>	<b>Net Savings (Costs)</b>	<b>Change in PYs<sup>11</sup></b>
2004–05	\$0	\$0	\$0	0
2005–06	\$57,000	\$9,500	\$47,500	0
2006–07	\$114,000	\$19,000	\$95,000	(7.5)
2007–08	\$171,500	\$38,000	\$133,500	(15)
2008–09	\$171,500	\$38,000	\$133,500	(15)

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from Fiscal Year 2003–2004 expenditures, revenues and PYs.

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## Endnotes

- <sup>1</sup> Data provided by the Department of General Services, May 19, 2004, from the Capital Outlay project database, looking at projects greater than \$50 million completed or under construction in the last 13 years.
- <sup>2</sup> “2002 BOMA Experience Exchange Report, Operating a Cost Effective Office Building, Your Guide to Income and Expense Data, Building Owners and Managers Association International,” 2002. The data used for comparison are the median total operating expense plus parking expense for Los Angeles—All Suburban.
- <sup>3</sup> The standard Building Rental Rate as charged by the Department of General Services, and published in the online Price Book: <http://www.ofs.dgs.ca.gov/Price+Book/R/Rent.htm> (last visited June 17, 2004), is \$21.84 per sq. ft. per yr. In order to incorporate all of the single-building custom rates, the total “Cost to be Recovered” for the budget of the Building and Property Management Branch of DGS was divided by the total square footage of buildings operated by DGS Building and Property Management Branch (BPM). These figures were supplied by the DGS Budget Office. Using BPM’s budget of \$181.8 million divided by the 6.57 million sq. ft. of full-service office space under their control plus yields \$27.68 per sq. ft. per year.
- <sup>4</sup> Data from David Taylor Inc., telephone interview with Devon Atlee, April 5, 2004 regarding Lot A proposal to the City of Sacramento.
- <sup>5</sup> Data supplied by DGS Real Estate Services Division, May 19, 2004 for buildings greater than \$50 million built in the last 13 years, comparable to the Taylor project, built using the state capital outlay process.
- <sup>6</sup> Memorandum from Department of General Services-Real Estate Services Division, 707 Third Street, Suite 8155, West Sacramento, CA 95605, to all Real Estate Services Division (RES D) staff on 2001 Customer Satisfaction Survey (February 1, 2002).
- <sup>7</sup> Real Estate Services Division, Department of General Services, “Customer Satisfaction Survey 2003: Results” (October 27, 2003), Chart labeled “RES D Customer Survey Totals—2003, Agreement: Compare all Branches.”
- <sup>8</sup> Eggers, William D., “Show Me the Money—Budget-Cutting Strategies for Cash-Strapped States,” *The American Legislative Exchange Council and the Center for Civic Innovation at the Manhattan Institute*, July 2002.
- <sup>9</sup> Legislative Analyst’s Office, *Analysis of the FY 2004–2005 Budget*.
- <sup>10</sup> Dennie Richards, realty specialist, General Services Administration, Public Building Service, April 23, 2004.
- <sup>11</sup> These PY estimates are estimated conservatively to model the effect of competition over time, as DGS or the new Division of Housing, Buildings and Construction will take actions to limit its own size to keep its rates competitive with other options available to its customers.



# One-Stop Shop for School Facility Approval

## Summary

The state's multi-billion dollar investment in local school buildings involves a cumbersome, duplicative and time-consuming multi-agency approval process that fails to review important elements of the projects. The state needs a facility approval process that ensures the safety and financial security of school sites and construction, without delaying or adding cost to a project.

## Background

With the passage of Propositions 1A in 1998, 47 in 2002 and 55 in 2004, the state approval of school facilities has risen by over 300 percent, with up to 4,000 school projects submitted for review and approval each year. The approval cycle for state-funded school construction involves a number of agencies and can take 18 months or longer to complete.<sup>1</sup>

The school construction approval and state funding process requires schools to submit applications and design drawings for approval by a minimum of four oversight agencies for different reasons and, depending on the site, as many as 40 other state entities.<sup>2</sup> The review process is sequential, with very little concurrent review or collaboration between agencies.<sup>3</sup> The four required agencies and their approval responsibilities are shown in Exhibit 1 below, in the order of approval. The additional 40 state entities that are occasionally part of the process are shown in Exhibit 2.

**Exhibit 1**  
**Public School Facility Approval Agencies**

Agency	Responsibility
California Department of Education (CDE)	Siting and educational requirements
Department of Toxic Substances Control (DTSC)	Environmental hazards assessment
Department of General Services, Division of the State Architect (DGS-DSA)	Construction plan review for compliance with the building code
Department of General Services, Office of Construction and Planning (DGS-OPSC)	Funding eligibility determination and allocation

The approvals by CDE, DGS-DSA, and DGS-OPSC are sequential. DTSC approval is conducted concurrently with CDE.<sup>4</sup>

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**Exhibit 2<sup>5</sup>**  
**State Agency Programs with Potential Involvement**  
**in School Facility Construction**

The Air Resources Board (ARB)  
Cal-OSHA  
California Coastal Commission  
California Department of Transportation (Caltrans)  
California Energy Commission (CEC)  
California Highway Patrol (CHP)  
California Indoor Air Quality (IAQ) Program  
California Integrated Waste Management Board (CIWMB)  
Caltrans Aeronautics Program  
Childhood Lead Poisoning Prevention Branch (CLPPB)  
Contractors State License Board (CSLB)  
Delta Protection Commission (DPC)  
Department of Conservation (DOC)  
Department of Fish and Game (DFG)  
Department of Health Services (DHS)  
Department of Industrial Relations (DIR)  
Department of Pesticide Regulation (DPR)  
Department of Water Resources, Division of Safety of Dams  
Division of Aeronautics  
Division of Apprenticeship Standards (DAS)  
Division of Labor Standards Enforcement (DLSE)  
Division of Land Resource Protection (DLRP)  
Division of Mines and Geology (DMG)  
Division of Oil, Gas, and Geothermal Resources (DOGGR)  
Division of Transportation Planning (DOTP)  
Drinking Water Program  
Industrial Welfare Commission (IWC)  
Native American Heritage Commission (NAHC)  
Occupational Safety and Health Appeals Board (OSHAB)  
Occupational Safety and Health Standards Board (OSHSB)  
Office of Advanced System Planning (OASP)  
Office of Emergency Services (OES)  
Office of Environmental Health Hazard Assessment (OEHHA)  
Office of Historic Preservation (OHP)  
Office of Self Insurance Plans (OSIP)  
Office of the State Fire Marshal  
OPR State Clearinghouse (SCH)  
Registered Environmental Assessor (REA) Program  
San Francisco Bay Conservation and Development Commission (BCDC)  
Santa Monica Mountains Conservancy (SMMC)  
State and Consumer Services Agency  
State Water Resources Control Board (SWRCB)  
Transportation Planning Program



### ***Sequential reviews bog down approvals***

Applications and drawings are submitted in paper format and flow through the process one agency at a time. DGS-DSA estimates that “wait states,” or the time between the submittal and actual review time in the sequential process, as well as correction cycles, can add up to nine months to the overall process.<sup>6</sup>

Following the passage of the recent statewide bonds cited above, in 1998, 2002 and 2004, workload, approval delay and political pressure to speed the process up have increased.<sup>7</sup> The passage of Senate Bill (SB) 50 in 1998 was meant to streamline the project approval process. Two key components of SB 50 required DGS-DSA to contract with non-state architectural approval firms to provide a plan-check alternative, and required OPSC to significantly streamline the approval process by reducing the number of steps and forms involved in the process. The changes improved the process, but since SB 50’s passage, new regulations have begun to slow approvals again.<sup>8</sup>

### ***School facility approval process for state-funded facilities***

The following is a description of the facility approval process for schools receiving funding from the state. Exhibits 3 and 4 show full diagrams of this process. Public schools not funded by the state must still receive CDE, DTSC and DGS-DSA approval.

## Exhibit 3<sup>9</sup>

### Approval Process for School Sites

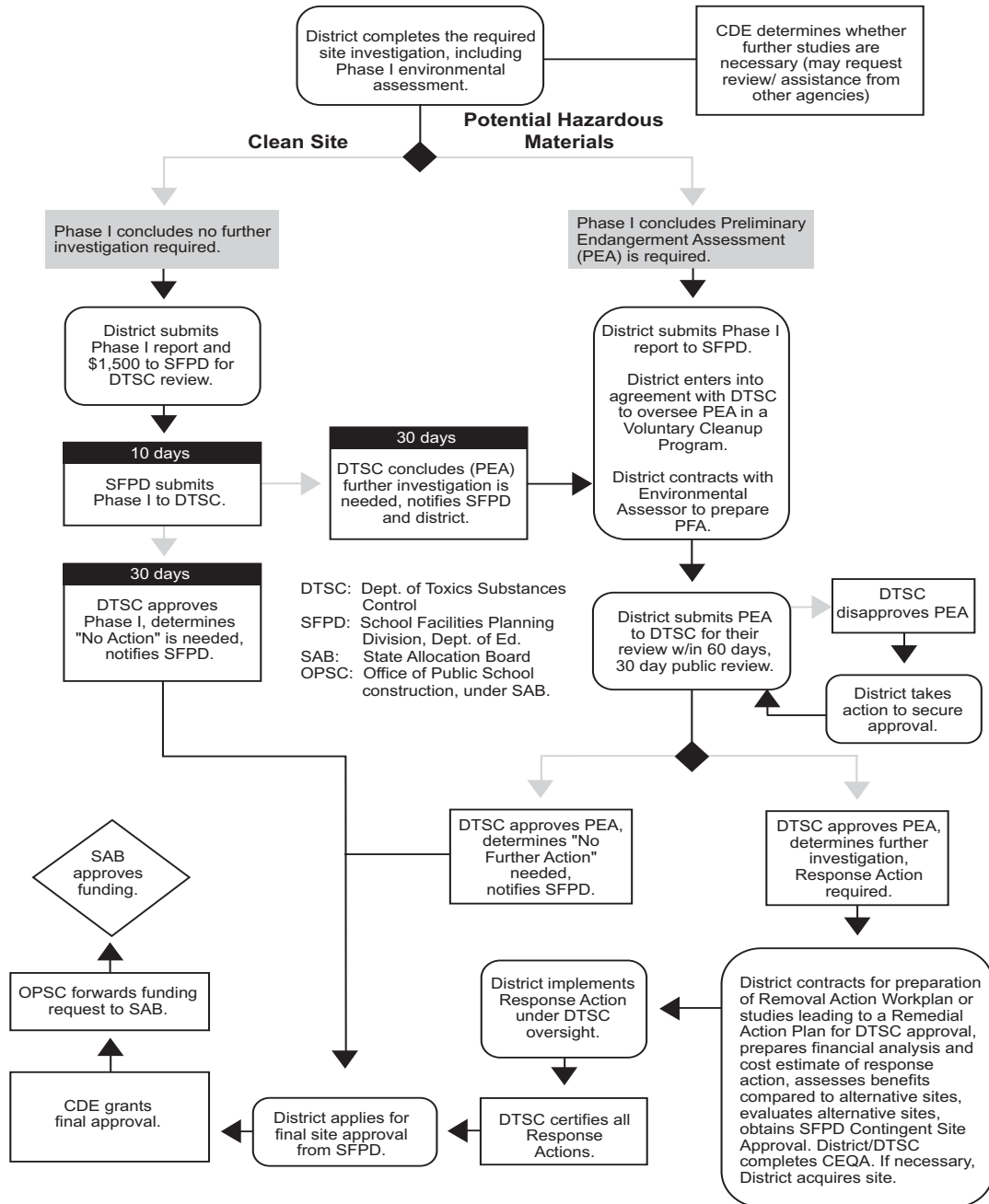
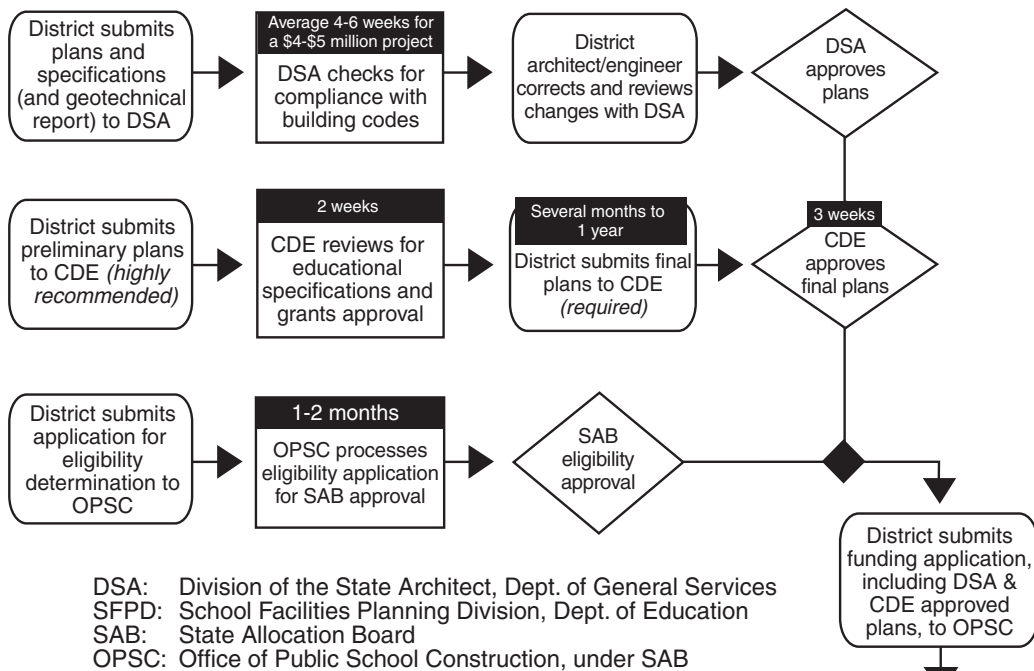


Exhibit 4<sup>10</sup>

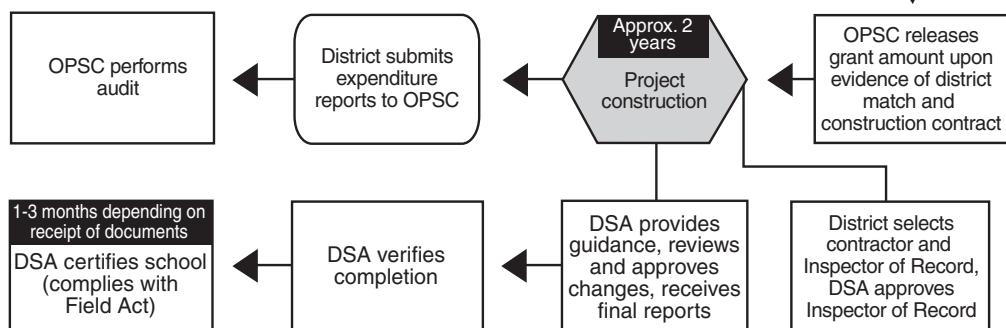
## Approval Process for School Plans

## Approval Process For School Plans



## The Process

The district's architect or engineer submits the plans to the Division of the State Architect (DSA) and the School Facilities Planning Division (SFPD). A district representative, who may be an outside consultant, is responsible for State Allocation Board (SAB) applications. The amount of time it takes for plan and funding approval varies considerably with the size of the project, the use of previously approved material or plans, and the experience and responsiveness of the district's architect. In addition, plans for modernization and class size reduction in prefabricated classrooms are generally approved more quickly than plans for new construction.





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As an optional first step, a school district may ask DGS-OPSC to determine the state funding eligibility at the outset of the planning process. This can help districts to determine the amount that they can realistically expect from the state for a project.

A school district building a new school must obtain site approval from the state. The main entity responsible for school site approval is CDE's School Facilities Planning Division (CDE-SFPD). The first step in this process is for the division to preapprove sites for school districts. This allows the districts to move forward towards purchasing the site with the reasonable assurance that the site will be acceptable to the state when the actual approval happens. When reviewing sites for preapproval, the CDE-SFPD considers issues of safety, educational adequacy, joint use potential, neighborhood impact, ease of purchase and development, environmental impacts, and maintainability.

After a district has received preapproval for a number of sites, they choose a preferred site and begin a California Environmental Quality Act (CEQA) documentation process and initiate a site approval process with DTSC. DTSC performs a fee-for-service review of a district's environmental toxicity test results from a site and approves sites as clean or cleaned to a certain standard. Depending on the expertise of the district or their consultant, and the cleanliness of the site, this process can take from a few months to a year or longer. The greatest determinant of site review and cleanup time and costs seems to be the district consultants' levels of expertise and understanding of the state process.<sup>11</sup>

One of the districts' complaints is that DTSC currently lacks a standards-based process that would allow for a district to have tests performed for simple verification of compliance. Instead, DTSC has a site-specific process that requires a more extensive interaction between it and the districts. This increased interaction adds time and money to the project, more or less depending on the school's consultant and the site specifics.<sup>12</sup> While this allows for flexibility in the approval of sites without a clear understanding of environmental hazards thresholds, districts and their consultants cannot discern the acceptability of a site without interaction with DTSC. Senate Bill 32 was enacted in 2001 and required the California Environmental Protection Agency (Cal-EPA) to publish a list of such thresholds; completion is expected later this year.

Additionally, schools applying for approval to expand an existing site are subject to DTSC approval. This can create a situation where an existing, overcrowded site cannot expand to handle growth due to potential contaminants while the school continues to serve students on the site. While the state will not provide funding to replace the site, it also may not approve the expansion of the facilities, leaving the district in an uncomfortable position of either overcrowded classrooms or bussing students to another school.<sup>13</sup>

After attaining DTSC approval, the district returns to CDE-SFPD and submits documents related to local government interaction, educational adequacy, environmental compliance,



geographic location, site size justifications and other issues. If these documents meet CDE-SFPD's approval, then a final site approval letter is sent to the district.

### ***Building plan approval***

At this point, the district architect can begin design work, which can take as long as a year depending on the size and complexity of the structure. Once the construction drawings are completed and approved by the district, the architect submits the plans and specifications to CDE-SFPD and DGS-DSA for approval.

CDE-SFPD reviews plans for educational adequacy and environmental compliance and upon approval, will issue a Final Plan Approval letter to the district. The review focuses mainly on the educational specifications, commonly referred to as "Ed. Specs." These are building and site specifications that address educational issues and are approved by the district board. CDE-SFPD checks the plans to ensure that they match the local board-approved Ed. Specs.

The building plans are submitted to DGS-DSA for approval. DGS-DSA's engineers and architects check the building plans to ensure that they comply with the state's Building Code. The district architect normally submits three sets of paper plans and specifications that are checked by DGS-DSA and then sent back to the district architect for revisions. After the revisions are made, the plans are then approved or disapproved.

### ***DGS-DSA contracts out significant amounts of work***

Since the passage of SB 50, DGS-DSA has retained private firms on contract to be made available to school districts that opt for the use of these services. DGS-DSA manages 183 contracts with firms ranging between \$250,000–300,000 each, to be able to handle a large potential project load. Currently the division sends 40 percent of its work to these consultants.<sup>14</sup>

### ***Parts of schools not being reviewed***

DGS-DSA state staff and contractor's review sometimes fail to check critical parts of the building against the building code. None of the facility plans is checked for electrical, mechanical or plumbing compliance, and only a small percentage is checked for energy compliance. These oversights have caused brand-new school facilities to be constructed without meeting code. They are costly to operate and maintain.<sup>15</sup> After wages and salaries, utility costs are one of the greatest expenses for districts—often meeting or exceeding what districts spend on books and other school supplies.<sup>16</sup>

### ***Fiscal approval***

After receiving DGS-DSA and CDE-SFPD approval, the district applies to DGS-OPSC for eligibility determination and funding approval. This fiscal process takes a minimum of 90 days, depending on the quality of the application and district responsiveness. Upon DGS-OPSC approval the application is forwarded to the state's school facility funding

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authority, the State Allocation Board (SAB). SAB holds monthly meetings where it reviews projects for funding from statewide bonds. The approval involves no additional review beyond that already done by DGS-OPSC. Due to the frequency of the monthly meetings, SAB approves most applications within 30 days of the DGS-OPSC approval.

Once SAB grants approval, the district submits a Fund Release Authorization to DGS-OPSC which releases funds to districts within three weeks of submittal reception. The district must then submit a yearly expenditure report and after 18 months, a progress report.

### ***Construction***

Before the beginning of construction, the district must hire a DGS-DSA-approved Inspector-of-Record to be on-site for the entire construction process to ensure that the project is built to meet the state's building code and DGS-DSA-approved plans and specifications. DGS-DSA appoints a field engineer to visit the site periodically to review construction work. Certain construction materials have to be inspected during construction by a laboratory approved by DGS-DSA.

At the end of construction, DGS-DSA will award a Final Certification of Construction. Within two years of project completion, DGS-OPSC will perform a financial audit of the project expenditures.

### ***Duplication***

Three agencies (CDE-SFPD, DGS-DSA, and DGS-OPSC) perform site checks to review conditions of existing, potential and in-construction facilities. None of these site checks is coordinated, and none of the collected information is consolidated.

At least four agencies review a number of sets of paper site plans and building plans for educational, environmental, building code and financial adequacy. CDE-SFPD, DGS-DSA, and DGS-OPSC have initiated an online tracking process for projects. The cross-departmental nature of this tool, along with a pilot online plan check process at DGS-DSA, show good potential for future uses of technology to expedite the plan check by allowing for concurrent, paperless, real time reviews.

DGS-OPSC staff reviews project applications for local school district projects and approves or rejects them. The approved ones are sent to SAB.<sup>17</sup>

In February 2000, the Little Hoover Commission called for the school facility approval process to be consolidated.<sup>18</sup> Its report identified delays and duplications in the approval process and the potential for significant reduction in process time. The report notes that the complexity of the review and approval process has led to an increase in the use of educational facility consultants to help districts work through the maze of forms and regulations. The money used



by schools for these consultants results in a decrease of funds for classroom construction. To date, the Commission's recommendations have not been implemented.

In January 2004, the Pacific Research Institute identified the same issues noted by the Little Hoover Commission—a lengthy process involving multiple agencies and expensive delays. The Institute's report asserted that school construction costs one-third to one-half more than private sector construction, and that the main reason for this additional cost is the state's cumbersome review and approval process.<sup>19</sup>

### ***State review vs. local review***

Local entities, such as cities and counties, private firms and some school districts have the technical ability, but not the authority, to check building plans for code compliance, and could provide another option for school districts concerned about potential delays. School districts, however, express concern about being subject to the regulatory oversight of local governments, and potential project delays as a result of political friction between districts and local governments.<sup>20</sup> Architects express concern that such an arrangement would require them to work with a variety of local plan check agencies and their particular requirements, rather than just DGS-DSA statewide policies and practices. As every local jurisdiction can make additions to the building code and require additional design measures, a district-hired architect would need to learn the eccentricities of each local planning department within whose jurisdiction they would work. This could lead to additional time and expense.<sup>21</sup>

In some cases, however, review by nonstate entities could provide a more expedient option for site, building and fiscal approval, depending on the capabilities of the entities and the districts' relationships with them. The American Institute of Architects submitted a report to the California Performance Review in April 2004 that called for transforming DGS-DSA from an entity that primarily checks construction plans to an entity responsible for the management, oversight, training and certification of the school construction process.<sup>22</sup> By certifying local governments, private entities and school districts to perform building plan check responsibilities, DGS-DSA could delegate this authority and provide another option for districts seeking reviews. Certification should also be considered for site, environmental hazard and financial review.

### ***Recommendations***

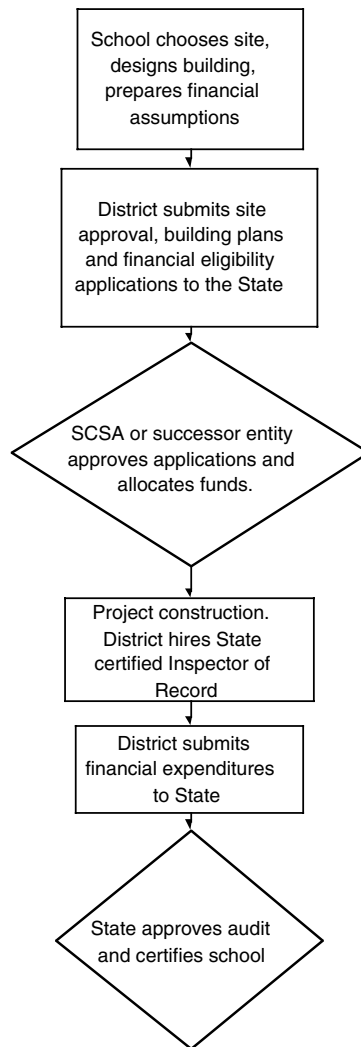
- A. The Governor should work with the Legislature to consolidate all parts of the school site, facility and financial review and allocation process into the State and Consumer Services Agency (SCSA), or its successor, and the process should be reduced to funding eligibility and allocation, site and building code compliance and a financial audit.**

The staff and responsibilities of the Department of Toxic Substances Control school site approval section and the California Department of Education's School Facilities

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Planning Division (CDE-SFPD) should be transferred to the SCSA, or its successor. Exhibit 5 illustrates the proposed process.

**Exhibit 5**  
**New School Facility Approval Process**



The SCSA, or its successor, should require school districts to undergo a single check for funding eligibility and allocation, site approval and plan check. This would be accomplished with a single documentation submittal, and would take place at the former Department of General Services' Division of State Architects (DGS-DSA) regional offices. The preliminary site approval, educational specifications and fiscal review process should be eliminated as mandatory but offered as a service for a fee.



After SCSA, or its successor's, approval, the school district project should be forwarded to the State Allocation Board (SAB) or its successor entity for allocation. The Inspector-of-Record and laboratory approval of products should continue to be required, and upon project completion, the district should be required to submit an audit of the use of state funds to SCSA or its successor.

Similar to fees now required by DGS-DSA and the California Department of Education for their services, SCSA, or its successor, should charge a fee for the services of eligibility, allocation, site, plan and audit approval, which reflects the costs of administration of the program.

- B. The State and Consumer Services Agency, or its successor, should develop and implement a certification process for private and public entities that school districts could use, optionally, for site, environmental hazards review, plan check and financial audits. This process should be operating by January 1, 2006.**

Many public and private entities could provide facility approval services for districts, but the state should ensure that the new review authorities are capable. A certification process would allow for a group of firms, local governments and school districts to be approved for determining site, building code, environmental hazards, and fiscal compliance. If a certified entity were used, the state's review would need only be cursory and should take no longer than one month. This process would allow districts the freedom to use review entities at their discretion and reduce time in state agency review.

- C. The State and Consumer Services Agency, or its successor, should publish environmental hazards standards for school sites and implement a streamlined site review process for existing sites by July 1, 2006.**

A publication of maximum allowable environmental toxicity levels on school sites will allow school districts and their consultants a clearer picture of site adequacy. This clarity will reduce uncertainties, save development costs and speed approval of potential school sites. This process has begun at the California Environmental Protection Agency (Cal-EPA); the SCSA, or its successor, should work with Cal-EPA to ensure that the information will be clearly communicated to districts and their representatives through publications, directed trainings and other outreach efforts. A streamlined process for existing sites would help to ensure that crowded school sites would be able to expand while providing a safe learning environment for staff and students.



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**D. The State and Consumer Services Agency, or its successor, should implement an online project approval program to begin operating by July 1, 2006.**

An online approval program will allow for the process of plan review and corrections to be accelerated. DGS-DSA has already begun this process with a pilot project in their Oakland office.

**E. The State and Consumer Services Agency, or its successor, should provide leadership on school facility issues, develop a thorough facility-training program and provide technical assistance and advice for district staff and other facility stakeholders.**

The current agencies all provide a number of programs and resources for school districts on building and process issues. The SCSA, or its successor, should develop a training and research program in collaboration with other groups such as Coalition for Adequate School Housing, the California Association of School Business Officials and the Collaborative for High Performance Schools, which would provide guidance on all issues of planning, design construction, operations and financing school facilities. SCSA, or its successor, should become the single voice of the administration on school facility issues.

***Fiscal Impact***

The consolidation of agencies into a one-stop shop for school facility approval—along with the reduction of steps in the review and approval processes—will result in substantial annual savings and improved services. Because these actions will depend on legislation and individual agency actions, however, the savings resulting from this recommendation cannot be estimated.

The services provided by the State and Consumer Services Agency or its successor entity will be paid for by fees from school districts. Therefore, no additional costs will be incurred by the state. With a one-stop shop for school facility approval, the fees charged to school districts for these services are expected to be substantially lower.

The training program development and implementation will be accomplished by redirecting existing training staff from the various agencies and through partnerships with nonstate groups. Florida, for example, runs a comprehensive, statewide training program with four staff members. This process improvement can be funded within existing resources.

The infrastructure for an online plan approval system is already in place at DGS-DSA. DGS-DSA predicts that for less than \$1 million the system could be expanded to encompass the other agencies' document management responsibilities. The management of the tool would be accomplished with existing staff.<sup>23</sup> The costs for the expansion of the system will be paid





from the redirection of savings associated with consolidation and process improvements made by this proposal.

The development of an environmental hazards threshold list has begun at Cal-EPA and any minor costs can be paid from its existing budget.

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## Endnotes

- <sup>1</sup> Interview with Roy McBrayer, deputy to the State Architect, Sacramento, California (March 3, 2004).
- <sup>2</sup> Pacific Research Institute, "No Place to Learn: California's School Facilities Crisis," K. Lloyd Billingsley (San Francisco, California), p. 15.
- <sup>3</sup> Interview with Roy McBrayer.
- <sup>4</sup> Interview with Roy McBrayer.
- <sup>5</sup> Pacific Research Institute, "No Place to Learn: California's School Facilities Crisis," p. 18.
- <sup>6</sup> Interview with Roy McBrayer.
- <sup>7</sup> Interview with Roy McBrayer.
- <sup>8</sup> Interview with Dave Doomey, Capistrano Unified School District, San Juan Capistrano, California (May 24, 2004).
- <sup>9</sup> Little Hoover Commission, "To Build a Better School" (Sacramento, California, February 2000), p. 35.
- <sup>10</sup> Little Hoover Commission, "To Build a Better School," p. 36.
- <sup>11</sup> Interview with Hamid Saebfar, Department of Toxic Substances Control, Sacramento, California (June 2, 2004).
- <sup>12</sup> Interview with Tom Duffy, Coalition for Adequate School Housing, Sacramento, California (March 9, 2004).
- <sup>13</sup> Interview with Tom Duffy.
- <sup>14</sup> Interview with Howard Smith, Division of the State Architect, Sacramento, California (May 17, 2004).
- <sup>15</sup> Interview with Chip Fox, Semptra Energy, Sacramento, California (February 27, 2004).
- <sup>16</sup> California Energy Commission, "The Bright Schools Program," <http://www.energy.ca.gov/efficiency/brightschoools/index.html> (last visited June 2, 2004).
- <sup>17</sup> California State Allocation Board, "Alphabetized List of Items Scheduled for Presentation to the State Allocation Board" (Sacramento, California, May 26, 2004).
- <sup>18</sup> Little Hoover Commission, "To Build a Better School" (Sacramento, California, February 8, 2000), p. 38.
- <sup>19</sup> Pacific Research Institute, "No Place to Learn: California's School Facilities Crisis," p. 1.
- <sup>20</sup> Interview with Constantine Baranoff, Elk Grove Unified School District, Elk Grove, California (March 16, 2004).
- <sup>21</sup> Interview with Dennis Dunston, HMC Architects and chair, Architects Council, Coalition for Adequate School Housing, Sacramento, California (March 12, 2004).
- <sup>22</sup> California Chapter, American Institute of Architects, "California Performance Review—Ideas to restructure, reorganize and reform state government to enable the design and construction industry to be more responsive to the needs of the public" (Sacramento, California, April 2004), p. 8.
- <sup>23</sup> Interview with David Norohna, Division of the State Architect, Sacramento, California (June 2, 2004).

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# Management of the Department of Transportation's Projects Needs to Improve

## **Summary**

Caltrans' ineffective project management, along with fluctuating staffing for highway improvements, has resulted in project delays, higher costs and unhappy customers.

## **Background**

### **Caltrans' project delivery**

One of the Department of Transportation's (Caltrans) primary roles is to maintain and operate the state's highway system. As part of this role, Caltrans develops highway system maintenance and improvement projects through its project delivery organization. About 10,000 project delivery employees are spread throughout the state in Caltrans' 12 district offices and its Sacramento headquarters. These Caltrans workers manage billions of dollars worth of transportation capital improvement projects.

### **Project management**

Project management applies the knowledge, skills, tools and techniques necessary to control project activities and meet project requirements.<sup>1</sup> On September 30, 1987, a Little Hoover Commission hearing on the State Transportation Improvement Program (STIP) Project Delays found that, "Caltrans should look to other organizations for new project management techniques to reduce project development and delivery lag times."<sup>2</sup> Since September 1989, Caltrans has been using district implementation plans for project management.<sup>3</sup>

In February 1994, the Legislative Analyst's Office (LAO) reported that Caltrans was still in the early stages of implementing project management principles.<sup>4</sup> The March 1996 progress report found that Caltrans had made a strong start in developing a statewide project management approach, but it had not addressed how project managers could handle multiple projects.<sup>5</sup> The study also noted the challenging issues surrounding project expenditures, schedule performance, project commitments, changing priorities and management accountability.<sup>6</sup>

In the Fall of 2003, seven out of eight Regional Transportation Planning Agencies (RTPA) located in Caltrans District 10 near Stockton formed a team to look at their partnership with Caltrans. Their focus was Caltrans' management of transportation project delivery, which had become a source of frustration. The team recommended ways to improve project management.<sup>7</sup> Similar concerns were expressed by other local agencies, including the Santa Clara Valley Transportation Authority and the San Diego Association of Governments.<sup>8</sup>

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The District 10 issue paper was presented at Caltrans' January 2004 statewide Project Management Board meeting.<sup>9</sup> They agreed that District 10 needed more authority for managers at the Caltrans district level, reduced workload for project managers and better project management tools.

Caltrans has not provided its local agency customers with a project manager who can make solid commitments.<sup>10</sup> Local agencies report that commitments made by Caltrans' project managers are frequently overturned by somebody at a Caltrans regional office or at Sacramento headquarters. Local agencies view Caltrans' project delivery staff as technical experts who administer multiple layers of review for technical items and changes during a project's development phase that result in increased costs and delayed schedules after project commitments are made.

While it is critical to provide project managers with authority, it is also important that they have adequate time for decision making. The heavy workload assigned to Caltrans project managers has been an ongoing issue identified by legislative reports, local agencies, Caltrans management, LAO, and other recent studies.<sup>11</sup> In response to concerns expressed by LAO regarding the Governor's 2000–2001 budget, Caltrans commissioned a study of project management workload.<sup>12</sup> In February 2001, the study was provided to Caltrans' district managers with instructions to review their project managers' workload and begin increasing the number of project managers.<sup>13</sup> A 2003 report by the Public Policy Institute found that "Caltrans project managers are 'inundated with work' and they have no choice but to manage by exception, and to try to catch projects that are falling behind."<sup>14</sup>

With the number and complexity of projects managed by Caltrans, it is critical to have solid methods to track project scope, schedule and costs. While most Caltrans customers see that current project information is not readily available, Caltrans management agrees that inadequate tools are the primary obstacle to getting this information.<sup>15</sup> In 1997, legislation required Caltrans to provide project information to external project sponsors.<sup>16</sup> The project information techniques used by Caltrans were not adequate to meet the new requirements. Over the years, the scope and estimated cost of developing a new project information management tool has fluctuated. Caltrans has tried to work through the procurement process with the Department of Finance (DOF), but Caltrans still uses the same tools as in 1997.<sup>17</sup> Transportation partners are frustrated by untimely and inaccurate project information. Caltrans continues working with DOF to secure a newer project management tool.<sup>18</sup>

### ***Stable staff levels***

Caltrans develops its annual project delivery budget by adding together all of its individual project work plans.<sup>19</sup> While this method provides accurate workload estimates, it can cause workload levels to change significantly each year as project funding fluctuates.



Since Caltrans primarily uses state employees for project development, the funding fluctuations cause state staffing level fluctuations. Reducing and then rehiring staff to match the funding fluctuations increase project costs and delays project completion. Caltrans loses staff expertise during cutbacks and incurs the additional cost of recruiting, training, facilities and equipment during heavy staff expansion.

From 1985 to 2004, Caltrans' permanent and temporary project delivery staff grew from 4,741 Personnel Years (PYs) to 10,149 PYs.<sup>20</sup> Research indicates that a stable annual hiring plan would produce a more efficient workforce.<sup>21</sup>

Caltrans has tried to manage the staff shortage with consultant contracts which is often challenged by employee unions. When Proposition 35 was passed in November 2000, Caltrans was able to manage its project delivery workload more efficiently.<sup>22</sup> Other states, including Texas, Florida, Pennsylvania, New York and Georgia, manage their workload with a strong mix of state staff and consultant contracts.<sup>23</sup>

Although the cost differences between using state employees and contracting with private consultants is not covered here, there has been significant debate and no agreement between the different parties, primarily the Consulting Engineers and Land Surveyors of California (CELSOC) and the Professional Engineers in California Government.

Caltrans' project delivery staff work comes from a variety of ongoing and special programs. Some of the ongoing programs, such as the State Highway Operation and Protection Program and, to a lesser degree, the Interregional Transportation Improvement Program, have fairly predictable workload levels. The Traffic Congestion Relief Program and Seismic Retrofit Program are more temporary and volatile. The Regional Transportation Improvement Program (RTIP) or partnership programs only use Caltrans' project delivery staff if chosen by the local agency.<sup>24</sup> Tying Caltrans' project delivery staffing levels to the temporary, volatile programs is inconsistent with a goal of stable staffing.

### **Recommendations**

- A. The Department of Transportation (Caltrans), or its successor, should develop a work plan for completing the implementation of project management in project delivery by December 31, 2004.**

While the duration of the plan execution may take several years, the goals for July 1, 2005 include:

- The authority for project decisions that have an impact on project scope, schedule or cost will be moved from Caltrans' headquarters to the project managers in district offices;

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- The workload for project managers will be consistent with the guidance given in the February 2, 2001 Caltrans memo on Project Manager Workload. Additional positions needed in the districts will come from reductions in headquarters project delivery staff; and
  - Project management tools will be implemented to provide the project information needed by project delivery staff and Caltrans transportation partners on a timely basis.

**B. Caltrans, or its successor, should develop a plan to stabilize project delivery staff levels by December 31, 2004. Initial implementation of the plan will coincide with Fiscal Year 2005–2006.**

The plan includes the following:

- Employee staffing levels will be based on the amount of workload generated from the State Highway Operation and Protection Program and Interregional Transportation Improvement Program.
- The amount of workload for consultant staff will equal Caltrans' portion of the RTIP.
- When needed, reduce state staff at the attrition rate.
- When needed, increase state staff relative to the available candidate pool.
- Amend Government Code Section 14524.2 as shown below.

Government Code 14524.2.

- (a) ~~If the department's total project delivery plan for any year requires a permanent and temporary capital outlay support staffing level which equals the 1986–87 budgeted permanent and temporary capital outlay support staffing level, the~~ *The department's budget request for that each year shall contain a permanent and temporary capital outlay support staffing level equal to its 1986–87 authorized permanent and temporary capital outlay support staffing level that is at least ninety-five percent and not more than one hundred and five percent of its permanent and temporary capital outlay support staffing level requested for the previous year.*
- (b) *The department's budget request for each year shall contain sufficient personal services to pay the actual personal services costs of its permanent and temporary capital outlay staff from the previous year adjusted for increases and decreases in its permanent and temporary capital outlay staffing level, merit salary adjustments, and salary adjustments made through collective bargaining and actions of the Department of Personnel Administration.*
- (c) For purposes of this section, "permanent and temporary capital outlay support staffing level" means the department's permanent and temporary capital outlay support staffing level funded by state and federal funds through the State Highway Account.





## Fiscal Impact

There are no General Fund impacts. There may be some savings in transportation funds that could be applied to other transportation projects.

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## Endnotes

- <sup>1</sup> Project Management Institute, *"A Guide to the Project Management Body of Knowledge"* (Newtown Square, Pennsylvania, 2000), p. 6.
- <sup>2</sup> California Department of Transportation, *"Chronology of Project Management in Caltrans,"* [http://www.dot.ca.gov/hq/projmgmt/chron\\_1980.htm](http://www.dot.ca.gov/hq/projmgmt/chron_1980.htm) (last visited May 24, 2004).
- <sup>3</sup> California Department of Transportation, *"Chronology of Project Management in Caltrans,"* [http://www.dot.ca.gov/hq/projmgmt/chron\\_1980.htm](http://www.dot.ca.gov/hq/projmgmt/chron_1980.htm) (last visited May 24, 2004).
- <sup>4</sup> California Legislature, Legislative Analyst's Office, *"Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation,"* by SRI International (Sacramento, California, February 1994), p. I-1. (Consultant's report.)
- <sup>5</sup> California, Business, Transportation and Housing Agency, *"Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation—Progress Report on Caltrans' Implementation Efforts,"* by SRI International (Sacramento, California, March 1996), pp. 33–39 (consultant's report).
- <sup>6</sup> California, Business, Transportation and Housing Agency, *"Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation—Progress Report on Caltrans' Implementation Efforts,"* by SRI International (Sacramento, California, March 1996), pp. 34 (consultant's report).
- <sup>7</sup> Stanislaus Council of Governments, *"Draft Regional Transportation Planning Agency Issue Paper Regarding Caltrans District 10 Project Delivery"* (September 17, 2000).
- <sup>8</sup> Meeting at Santa Clara Valley Transportation Authority (VTA) with Mike Evanhoe, VTA; Carolyn Gonot, VTA; John Ristow, VTA; William Gray, Gray–Bowen and Co. Inc.; David Richwood, BKF; Christopher Metzger, Nolte Assoc. Inc.; Robert Stromsted, HNTB; James Robinson, Hatch Mott MacDonald; Jeff Funk, VTA; Karen Stagner, Hatch Mott MacDonald; Ted Hall, HNTB; and Jack Collins, VTA, San Jose, California (March 12, 2004); and interview with Jack Boda, Department Director of Mobility Management and Project Implementation, San Diego Association of Governments, Sacramento, California (April 16, 2004); and interview with Gary Gallegos, Director, San Diego Association of Governments, Sacramento, California (April 19, 2004).
- <sup>9</sup> California Department of Transportation, Project Management Board Meeting, *"Group Memory"* (Sacramento, California, January 30, 2004), pp. 13–14.
- <sup>10</sup> Caltrans, Office of Program Evaluation and Analysis, *"Caltrans External Customer Survey Focus Groups,"* by BBC Research & Consulting (Sacramento, California, May 21, 2001) p. 5 (consultant's report); and Stanislaus Council of Governments, *"Draft Regional Transportation Planning Agency Issue Paper Regarding Caltrans District 10 Project Delivery"* (September 17, 2003); and meeting at Santa Clara Valley Transportation Authority (VTA) with Mike Evanhoe, VTA; Carolyn Gonot, VTA; John Ristow, VTA; William Gray, Gray–Bowen and Co. Inc.; David Richwood, BKF; Christopher Metzger, Nolte Assoc. Inc.; Robert Stromsted, HNTB; James Robinson, Hatch Mott MacDonald; Jeff Funk, VTA; Karen Stagner, Hatch Mott MacDonald; Ted Hall, HNTB; and Jack Collins, VTA, San Jose, California (March 12, 2004); and interview with Jack Boda, Department Director of Mobility Management and Project



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- Implementation, San Diego Association of Governments, Sacramento, California (April 16, 2004); and interview with Gary Gallegos, Director, San Diego Association of Governments, Sacramento, California (April 19, 2004).
- <sup>11</sup> Interview with Carl Haack, Division Chief of Project Management, Caltrans and Nigel Blampied, Office Chief of Project Management Process Improvement, Division of Project Management, Caltrans, Sacramento, California (March 11, 2004); and California Legislative Analyst Office, "Report on the Governor's 2000–01 Budget," [http://www.lao.ca.gov/analysis\\_2000/transportation/tran\\_4\\_2660\\_anl00.htm#\\_1\\_8](http://www.lao.ca.gov/analysis_2000/transportation/tran_4_2660_anl00.htm#_1_8) (last visited May 24, 2004); and Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," by David E. Dowall and Jan Whittington (San Francisco, California, 2003) p. 80; and California, Business, Transportation and Housing Agency, "Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation—Progress Report on Caltrans' Implementation Efforts," by SRI International (Sacramento, California, March 1996), pp. 33–39 (consultant's report).
- <sup>12</sup> "California Department of Transportation, Caltrans Project Manager Workload Study" (February 2001).
- <sup>13</sup> Memorandum from John A. Boda, Program Manager, Project Management, California Department of Transportation to District Division Chiefs for Program and Project Management, Project Manager Workload (February 2, 2001).
- <sup>14</sup> Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," by David E. Dowall and Jan Whittington (San Francisco, California, 2003), p. 80.
- <sup>15</sup> California Legislature, Legislative Analyst's Office, "Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation," by SRI International (Sacramento, California, February 1994), p. I-5. (consultant's report); and California, Business, Transportation and Housing Agency, "Evaluation of the Organizational Structure and Management Practices of the California Department of Transportation—Progress Report on Caltrans' Implementation Efforts," by SRI International (Sacramento, California, March 1996), pp. 17–34. (consultant's report); and Stanislaus Council of Governments, "Draft Regional Transportation Planning Agency Issue Paper Regarding Caltrans District 10 Project Delivery" (September 17, 2003); and California Department of Transportation, Project Management Board Meeting, "Group Memory" (Sacramento, California, January 30, 2004), pp. 13–14; and interview with Carl Haack, Division Chief of Project Management, Caltrans and Nigel Blampied, Office Chief of Project Management Process Improvement, Division of Project Management, Caltrans, Sacramento, California, March 11, 2004.
- <sup>16</sup> Legislative Counsel of California, "Senate Bill No. 45, Chapter 622," [http://www.leginfo.ca.gov/pub/97-98/bill/sen/sb\\_0001-0050/sb\\_45\\_bill\\_19971003\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/97-98/bill/sen/sb_0001-0050/sb_45_bill_19971003_chaptered.pdf) (last visited May 24, 2004).
- <sup>17</sup> Interview with Nigel Blampied, Office Chief of Project Management Process Improvement, Division of Project Management, Caltrans, Sacramento, California (May 4, 2004).
- <sup>18</sup> Letter from Debbie D. Leibrock, Chief, Technology Investment Review Unit, DOF, and Connie Squires, Program Budget Manager, Business, Transportation and Housing Unit, DOF to Jeff Morales, Director, Department of Transportation (February 21, 2003); and Letter from Debbie D. Leibrock, Chief, Technology Investment Review Unit, DOF to Tony Harris, Chief Deputy Director, Department of Transportation (July 1, 2003); and Memorandum from Barbara Timmer, Chief Information Officer, Department of Transportation to D. Leibrock, Chief, Technology Investment Review Unit, DOF (January 13, 2004); and Letter from Debbie D. Leibrock, Chief, Technology Investment Review Unit, DOF, and Connie Squires, Program Budget Manager, Business, Transportation and Housing Unit, DOF to Tony Harris, Chief Deputy Director, Department of Transportation (March 17, 2004).



- <sup>19</sup> California Legislative Analyst's Office, "Analysis of the 2004–05 Budget Bill," Department of Transportation (2660), *Reduce COS Fluctuations for More Efficient Project Delivery* (February 2004), pp. A-48–A-49. [http://www.lao.ca.gov/analysis\\_2004/transportation/transportation\\_anl04.pdf](http://www.lao.ca.gov/analysis_2004/transportation/transportation_anl04.pdf) (last visited May 24, 2004).
- <sup>20</sup> Interview with Nigel Blampied, Office Chief of Project Management Process Improvement, Division of Project Management, California Department of Transportation, Sacramento, California (April 19, 2004).
- <sup>21</sup> John E. Hunter, Frank L. Schmidt and Michael K. Judiesch, "Individual Differences in Output Variability as a Function of Job Complexity," *Journal of Applied Psychology* (Volume 75, issue 1, 1990), p. 36.
- <sup>22</sup> Caltrans' Director's Policy (DP-20), "Contracting for Architectural and Engineering Services" (June 24, 2001).
- <sup>23</sup> Infrastructure Delivery Council, "State DOT Project Delivery Practices: A Comparative Analysis," by Thomas R. Warne, PE, and Thomas G. Schmitt, PE (March 31, 2004), pp. 7–16 (consultant's report).
- <sup>24</sup> Interview with Rick Guevel, Acting Office Chief of Project Data Management and Workload, Division of Project Management, California Department of Transportation, Sacramento, California (May 25, 2004).





# Improve School Facility Standards

## **Summary**

California state government has no process for assessing whether its significant investments in public school construction are providing the best value for taxpayers. Current facility standards do not ensure that buildings are adequate, safe, and economical, or that they represent the best value over the life of the facilities. The state must develop an inventory of educational facility needs and conditions to enable the development of sound policy decisions about resource allocation. Additionally, the state must develop construction and maintenance standards that will ensure school facilities provide high performance educational environments.

## **Background**

Several different state government entities administer at least four separate sets of standards and guidelines that govern the manner in which public schools are designed and built throughout the state. The principal factors influencing school facility design are educational specifications, health and safety standards and economic guidelines. These standards and guidelines are enforced by the California Department of Education (CDE), the Department of General Services' Division of the State Architect (DGS-DSA), the Department of Toxic Substances Control (DTSC), the Department of General Services' Office of Public School Construction (DGS-OPSC).<sup>1</sup>

At each stage of the facility approval process, a school district must submit building plans and specifications to one of the above entities, which then checks for compliance against its published guidelines and regulations. Once a school's site and facility plans are approved by the state, a DGS-DSA inspector supervises and oversees the schools' construction. In addition, the school construction process and the facility itself is audited by DGS-OPSC upon building completion.<sup>2</sup>

Despite such an extensive review process, the design of many new school facilities does not ensure that they are economically and resource efficient, safe, healthy and community-centered.<sup>3</sup> These are important considerations, given that the facilities constructed today will be used by districts for many years to come. The school facilities' design greatly affects the adequacy of education and the costs of operations.<sup>4</sup>

## **Better design is possible and cost effective**

A 2003 California Energy Commission (CEC) report, *Recommended Best Design Practices For All New Public Schools*, noted that over the life of a building, taxpayers pay ten times the cost of school construction in operating and maintenance expenses alone, and that school buildings

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influence student health and academic achievement. The report stated, “Some schools have been constructed that perform better than other schools as a quality learning environment . . . ,” and that some schools also have lower ongoing energy and maintenance costs.<sup>5</sup>

In 2003, the State Sustainable Building Task Force, composed of representatives from more than 40 state agencies, released a report entitled *The Costs and Financial Benefits of Green Building*, which found, among other things, “that an upfront investment of less than 2 percent of construction costs yields life cycle savings of over ten times the initial investment.”<sup>6</sup>

### **Life cycle costing**

Life cycle costing is a method of analyzing a project by which all costs arising from owning, operating, maintaining and ultimately disposing of a project are considered.<sup>7</sup> Lifecycle savings is the money saved over the life of a building attributable to the incorporation of certain design features that make the building more efficient, as opposed to simply making it meet state building code minimums.<sup>8</sup>

The builders of California’s schools are encouraged, by current state practices, to build schools to meet the lowest construction cost, as opposed to the lowest cost that could be achieved over the life of the building.<sup>9</sup> A slightly more expensive air-conditioning system, lighting arrangement or better insulation are examples of items that can often reap energy savings that will outweigh additional costs, and further, can provide long-term savings that could be used for instructional materials.

The Little Hoover Commission (LHC) echoed this view in a 2000 report on school facilities, *To Build a Better School*. The LHC called for a new focus on school finance. The report asserts that the “goal should be to hold down the long-term costs of building, operating and maintaining school facilities—not just limiting initial building expenses.” The LHC recommended that the state develop school design and construction best practices that incorporate life-cycle engineering.<sup>10</sup>

Florida’s Office of Educational Facilities (FOEF) has incorporated life-cycle costing into its facilities funding process, requiring products and systems to be installed that offer the greatest life-cycle value. FOEF has developed “standards for construction materials and systems based on life-cycle costs that consider initial costs, maintenance costs, custodial costs, operating costs, and life expectancy.” Districts are prohibited “from expending local capital outlay revenues for any project that includes materials or systems that do not comply with these standards unless the district school board submits evidence that alternative materials or systems meet or exceed standards developed by the department.”<sup>11</sup>



### ***School energy costs are significant***

After wages and salaries, utility costs are one of the greatest expenses for districts—often meeting or exceeding what districts spend on books and other school supplies.<sup>12</sup> In 2003, the California State Architect began to review selected school building plans for energy efficiency, and found that many do not meet the state’s minimum energy code.<sup>13</sup> Utilities that offer financial programs for energy efficiency are also finding similar low performance.<sup>14</sup> This is happening at a time when the state’s school districts are spending over “\$700 million per year on energy in a time of rising concern over energy supplies and tight school budgets.”<sup>15</sup>

In its *Recommended Best Design Practices For All New Public Schools*, the CEC said school districts could easily and cost effectively exceed the minimum energy code by 10 percent and see paybacks of seven years and savings on the order of \$1.08 per square foot over the life of the building. The CEC also reports “Often, practical and straightforward measures can reduce energy use by over 30 percent . . .”<sup>16</sup>

The magazine *School Planning and Management*, in a May 2004 article, notes “between 25 to 30 percent of all energy consumed in schools is wasted.”<sup>17</sup> The state has already encouraged districts to build energy efficient facilities by offering financial incentives through grants and loans. To date, school district participation in the programs has been limited.<sup>18</sup> This low participation is often caused by the school districts’ unwillingness to participate in new, unfamiliar programs.<sup>19</sup>

### ***Current facility standards not providing quality education environment***

A number of studies released recently found that facility construction and design affect students’ academic performance.<sup>20</sup> A 1999 study of schools in three states found students improved their math and reading scores as much as 25 percent when classrooms were illuminated from quality daylight.<sup>21</sup> A 2004 report by the Los Angeles Unified School District found that facility condition and design is directly linked to academic performance, in some cases significantly.<sup>22</sup>

In 2003, the California Air Resources Board and Department of Health Services released a report, *Environmental Health Conditions in California’s Portable Classrooms*, which identified a number of health and safety concerns in California schools examined by these two entities. The study examined and surveyed two portable classrooms and one traditional classroom at several hundred schools across the state, and found the following:

- 40 percent of classroom hours have inadequate ventilation, and 10 percent of classroom hours have seriously deficient ventilation;
- 50 percent of portables and 38 percent of traditional classrooms have noise levels (without students present) that exceed the outdoor nuisance standard of 55 decibels. This noise is primarily from HVAC systems and lights;
- 60 percent of teachers in portables and 23 percent of teachers in traditional classrooms indicate that they turn off the ventilation system at times due to excess noise;

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- 4 percent of classrooms have formaldehyde levels that exceed Office of Environmental Health Hazard Assessment (OEHHA) interim eight-hour Reference Exposure Level (REL) for acute eye, nose, and lung irritation;
  - 21 percent of portables and 35 percent of traditional classrooms have water stains on the ceiling, 3 percent of portables have visible mold on the ceiling, and 12 percent of portables and 20 percent of traditional classrooms have excessive moisture in the walls, ceiling or floor;
  - 33 percent of classrooms have lighting that does not meet professional guidelines; and
  - 80 percent of classrooms have floor dust containing at least six measurable pesticides.<sup>23</sup>

As evidenced by the findings in the report, the state's current design standards are not resulting in construction of adequate facilities. Additionally, there is no existing maintenance standard for facilities, despite the fact that the state generally funds half of the construction and all of the maintenance costs.

### ***State unable to evaluate the condition of its investment***

The state lacks an inventory or index of facility conditions that would give policy-makers an idea of the scope of the deferred maintenance problem in California schools. This has resulted in piecemeal legislative approaches that are often responses to isolated incidents and result in burdensome, costly over-regulation of districts.

This lack of insight exposed the state to a class-action lawsuit that was filed in 2003 on behalf of California's public schoolchildren. The suit, *Williams v. State of California*, was filed against the State of California, the State Superintendent of Public Instruction, Department of Education and the State Board of Education. It alleges that the state has denied thousands of California children their fundamental right to an education under the California Constitution by failing to give them the basic tools necessary for that education. One of the tools is defined as "minimally habitable facilities." The absence of a statewide maintenance standard makes it difficult for the state to hold school districts accountable for the operations and maintenance of school facilities, or the adequacy of the learning environment.<sup>24</sup> Plaintiffs in several similar lawsuits filed across the nation have successfully held state officials legally responsible for failing to provide these necessary tools for the education of schoolchildren. These cases have resulted in major re-engineering of state educational facility programs and large allocations of funds to fix identified problems.<sup>25</sup>

In the 2000 LHC report, the commission identified the necessity of an inventory of school facility conditions and needs, and recommended "The Governor and the Legislature should enact legislation . . . to develop and maintain an inventory of facilities, project long-term facility needs, and assess the allocation of state funds."<sup>26</sup> The LHC report also recommended that "The inventory should include the essential characteristics of all buildings—age, size, capacity, condition, available technology and environmental equipment. It should specifically





identify closed or under-used school facilities that could be used by neighboring school districts. Local officials should be required to routinely validate and update the inventory.”<sup>27</sup>

The Public Policy Institute of California’s report, *Making Room for the Future: Rebuilding California’s Infrastructure*, states that current school maintenance funding is inadequate to provide quality preventative maintenance and is not tied to any evaluation of actual need or accountability standards for facility condition.<sup>28</sup> The Joint Committee to Develop a Master Plan for Education’s final work product also recommends creation of a “. . . statewide school facilities inventory system to assist state and local decision makers in determining short- and long-term school facility needs.”<sup>29</sup>

### **High performance schools**

In 2002, New Jersey Governor James McGreevey signed an executive order requiring all future schools built in New Jersey to meet the United States Green Building Council’s Leadership in Energy and Environmental Design (LEED) guidelines. LEED™ is a nationally-used sustainable building rating system designed to evaluate new and existing commercial, institutional and high-rise residential buildings. It offers four LEED™ certification categories, each representing an increasing level of performance.<sup>30</sup>

The Collaborative for High Performance Schools (CHPS) was formed in 1999 to address the need for better schools in California. CHPS includes a diverse range of state government agencies, utilities and other school stakeholders with a shared goal of improving the quality of education for California’s children. CHPS developed a series of “best practices” manuals for school planning, design and a pass/fail scoring system to determine if a school meets the Collaborative for High Performance School criteria. The criteria are performance standards related to siting, energy, water, materials, indoor environmental quality and community affairs.<sup>31</sup>

To date, ten California school districts have adopted the CHPS criteria as the design standard for all future buildings, including four of the six most populous (Los Angeles Unified, San Diego City Unified, Santa Ana Unified and San Francisco Unified).<sup>32</sup>

### **Recommendations**

- A. The Department of General Services, Division of the State Architect (see Exhibit 1) or its successor, should require school districts to meet design standards equivalent to the Collaborative for High Performance Schools and Leadership in Energy and Environmental Design criteria.
- B. The DGS, or its successor, should provide training and resource documents to assist school districts in choosing building products and systems that represent the lowest

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**lifecycle cost. The DGS, or its successor, should establish lifecycle cost criteria for use in evaluating projects and construction materials by July 1, 2005.**

Lifecycle criteria should consider initial costs, maintenance costs, custodial costs, operating costs and life expectancy.

- C. The Governor should direct the DGS, or its successor, to develop an inventory of K–12 educational facilities conditions and needs, and a process for districts to file online submissions to the inventory.**

The DGS, or its successor, should develop and maintain this inventory and accompanying measurement standards. The school districts should collect and enter the information, gathered from district Master Plans, into the online inventory. The information should be updated every five years and when a new building project is completed.

- D. The Governor should work with the Legislature to allow direct intervention into school districts that consistently show an inability to maintain their facilities.**

If a district has consistently shown an inability to maintain a safe, educationally adequate environment, the state should remedy this situation. Currently, the state focuses on addressing academic and fiscal problems with schools, but not the mismanagement of school buildings. The building adequacy program should be based upon these already existing programs and be guided by objective criteria and measurement protocols.

### ***Fiscal Impact***

The following fiscal information is provided for each recommendation.

- A. Requiring school districts to meet specified design standards, including the development of building code amendments to achieve the standards.

The Los Angeles Unified School District has had experience in designing schools using 48 of the Collaborative for High Performing Schools criteria points. The construction estimates indicate that although there may be an increase in the design fees associated with the specified design standards, the actual construction costs of the school facilities will be comparable to the costs of building a school using traditional design criteria.<sup>33</sup> Because of varying factors, such as the design of the school and site characteristics, actual cost comparisons are needed on a case by case basis. Although there may be potential increases in local construction costs, it is estimated to be minimal.



SCSA will already be involved in the setting of standards, adoption of building code amendments and the checking of school building plans to ensure a certain level of design quality so the cost for the recommendations that require these activities will be absorbed into existing budgets.

- B. Provision of training and resource documents to assist school districts in the selection of building products and systems, including the development of lifecycle cost criteria.

Existing state offices are already budgeted to provide this assistance.

- C. Development and maintenance of an inventory of K–12 educational facility condition and need with a process for districts to file online.

The Office of Public School Construction estimates that, working with the state's existing project tracking system, an inventory could be developed for a one-time cost of \$1 million.<sup>34</sup> Assuming the inventory maintenance is provided by state staff, the cost of a five-person unit would be \$488,000 annually with minimal cost to local school districts to provide the input.

- D. Propose legislation increasing state oversight of school district maintenance programs.

Costs will be dependent upon the level of oversight required and the need for future intervention by the state. Savings should accrue to school districts as a result of the better design and operation of their facilities.

**State Schools Facilities Fund**  
(dollars in thousands)

Fiscal Year	Savings	Costs	Net Savings (Costs)	Change in PYs
2004–05	\$0	\$1,000	(\$1,000)	0
2005–06	\$0	\$488	(\$488)	5
2006–07	\$0	\$488	(\$488)	5
2007–08	\$0	\$488	(\$488)	5
2008–09	\$0	\$488	(\$488)	5

Note: The dollars and PYs for each year in the above chart reflect the total change for that year from 2003–04 expenditures, revenues and PYs.

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## Endnotes

- <sup>1</sup> California Department of General Services, "School Facility Program, January 2004" (Sacramento, California, 2004), p. 7.
- <sup>2</sup> California Department of General Services, "School Facility Program, January 2004," p. 67.
- <sup>3</sup> California Air Resources Board and Department of Health Services, "Environmental Health Conditions in California's Portable Classrooms" (Sacramento, California, 2003), p. 18.
- <sup>4</sup> California Energy Commission, "Recommended Best Design Practices For All New Public Schools," by Gary Flamm (Sacramento, California, 2003), p. 1.
- <sup>5</sup> California Energy Commission, "Recommended Best Design Practices For All New Public Schools," p. 1.
- <sup>6</sup> Greg Kats, "The Costs and Financial Benefits of Green Building, Executive Summary" (Sacramento, California, 2003), p. v.
- <sup>7</sup> California Energy Commission, "Recommended Best Design Practices For All New Public Schools," p. 11.
- <sup>8</sup> Interview with Kathy Frevert, California Integrated Waste Management Board, Sacramento, California (June 1, 2004).
- <sup>9</sup> Little Hoover Commission, "To Build a Better School" (Sacramento, California, February 8, 2000), p. 41.
- <sup>10</sup> Little Hoover Commission, "To Build a Better School," p. 41.
- <sup>11</sup> Florida Statutes, Title XLVIII, Chapter 1013.37, (1), e, 4.
- <sup>12</sup> California Energy Commission, "Bright Schools Program," <http://www.energy.ca.gov/efficiency/brightschoools/index.html> (last visited June 2, 2004).
- <sup>13</sup> Interview with John Baca, Division of the State Architect, Sacramento, California (May 20, 2004).
- <sup>14</sup> Interview with Chip Fox, Semptra Energy, San Diego, California (February 27, 2004).
- <sup>15</sup> California Energy Commission, "Recommended Best Design Practices For All New Public Schools," p. 1.
- <sup>16</sup> California Energy Commission, "Recommended Best Design Practices For All New Public Schools," p. 1.
- <sup>17</sup> Peter Li Education Group, "Editor's Notebook—The Latest Hot Topics," by Deborah P. Moore (Dayton, Ohio, May 17, 2004), <http://www.peterli.com/archive/spm/651.shtm> (last visited May 17, 2004).
- <sup>18</sup> Interview with Chip Fox.
- <sup>19</sup> Interview with Dave Doomey, Capistrano Unified School District, San Diego, California (May 24, 2004).
- <sup>20</sup> National Clearinghouse for Educational Facilities, "Do School Facilities Affect Academic Outcomes?" by Mark Schneider (Washington, D.C., 2000).
- <sup>21</sup> Pacific Gas and Electric, "Daylighting in Schools," by Lisa Heschong (San Francisco, California, 1999).
- <sup>22</sup> Lynch School of Education, Boston College, "LAUSD School Facilities and Academic Performance," by Jack Buckley (Chestnut Hill, Maine, 2004).
- <sup>23</sup> California Air Resources Board and Department of Health Services, "Environmental Health Conditions in California's Portable Classrooms," p. 12.
- <sup>24</sup> Superior Court of California, County of San Francisco, Case number: 312236 "Williams vs. State of California," filed August 14, 2000. At press time this case had not been decided.
- <sup>25</sup> Tennessee Comptroller, Office of Education Accountability, "School Capital Funding: Tennessee in a National Context" (Nashville, Tennessee, 2002), p. 6.
- <sup>26</sup> Little Hoover Commission, "To Build a Better School," p. 57.
- <sup>27</sup> Little Hoover Commission, "To Build a Better School," p. 57.
- <sup>28</sup> Public Policy Institute of California, "Making Room for the Future: Rebuilding California's Infrastructure," by David E. Dowall (San Francisco, California, 2001), p. 97.



- <sup>29</sup> The Joint Committee to Develop a Master Plan for Education, "The California Master Plan for Education" (Sacramento, California, 2002), p. 173.
- <sup>30</sup> United States Green Building System, "Leadership in Energy and Environmental Design Green Building Rating System Version 2.1" (Washington, D.C., March, 2003), p. i.
- <sup>31</sup> Collaborative for High Performance Schools, "Publications and Resources," <http://chps.net/manual/index.htm>.
- <sup>32</sup> Collaborative for High Performance Schools, "Districts that Have Adopted CHPS," [http://chps.net/chps\\_schools/index.htm](http://chps.net/chps_schools/index.htm) (last visited May 6, 2004).
- <sup>33</sup> Los Angeles Unified School District, "Implementing CHPS: The Los Angeles Unified School District Experience," by John Zinner, Zinner Consultants (Los Angeles, California, February 28, 2003), p. 4 (consultant's report), [http://www.usgbc.org/chapters/losangeles/docs/pdf/ZinnerJohn\\_2003.pdf](http://www.usgbc.org/chapters/losangeles/docs/pdf/ZinnerJohn_2003.pdf) (last visited June 14, 2004).
- <sup>34</sup> Interview with Bruce Hancock, Office of Public School Construction, Sacramento, California (March 15, 2004).





# Create a Mechanism for Flexible, Reliable School Facility Finance

## Summary

The current K–12 school facility funding program does not provide school districts reliable funding for planning and building quality facilities. The current process is so complex that districts have begun to rely upon consultants in order to receive funding. The state needs a process to assist school districts with meeting facility needs, while providing the security of reliable funding and the flexibility for using funds to meet each districts unique need.

## Background

### **School facility funding program**

The state funds construction of K–12 educational facilities. It pays a fifty-fifty match for new construction, and 60 percent of modernization costs after twenty-five years of occupancy. The state provides funding through the sale of general obligation bonds approved by a statewide election. New construction funding is based on “un-housed student need” which is determined by comparing a district’s existing capacity to five-year enrollment projections and approved by the Department of General Services’ Office of Public School Construction (DGS-OPSC). Funding for modernization is based on each pupil to be housed in buildings to be modernized. If a district cannot show “need” under the new construction or modernization programs, it is ineligible for state funding.<sup>1</sup>

Currently, the state provides varied levels of funding for different school types:

Type of School (per student)	New Construction	Modernization (per student)
Elementary school	\$6,040	\$2,609
Middle school	\$6,388	\$2,760
High school	\$8,363	\$3,613

Additional supplemental funding is available for special circumstances (environmental site issues, small school sites, etc.) or student needs, such as special education.<sup>2</sup>

School districts provide the remaining financing for projects through developer fees, Mello-Roos district revenue and local general obligation bonds. Districts are then responsible for hiring an architect, contractor and project inspector, getting the necessary approvals from state agencies, and operating and maintaining the facilities.



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### ***A call for change***

In 2002, the Legislative Analyst's Office (LAO) released a report, *A New Blueprint for California School Facility Finance*, calling for the overhaul of the state's facility finance methods. In particular, LAO raised the following concerns about the current program:

- Unpredictable funding impacts planning—state funding is unpredictable because it relies on the vote of California citizens, and funds are often spent before another bond is authorized. This leads to “hills and valleys” of funding opportunities and hinders districts' abilities to plan facilities that will include state financing; and
- State's process leads to competition for limited funds—the state's process for allocating funds relies on a first-come, first served system for the allocation of limited funds. This process results in funding going to districts with the most experienced personnel and best consultants (see below) rather than those with the greatest need.<sup>3</sup>

The Joint Legislative Committee to Develop a Master Plan's final report in 2002, *The Master Plan for Education*, identified the same problem with the current school construction funding system:

... there is no doubt that the current model of funding for public school facilities in California is unresponsive to the planning and funding needs of school districts, and, therefore, results in the inefficient use of resources for facilities. In particular, reliance on state General Obligation bonds and the current method of allocating bond proceeds has created a system that has not been conducive to long-term planning for school facility needs at the local level, and that fails to 'leverage' or encourage the development of local sources of funding for school capital outlay needs.<sup>4</sup>

The LAO and the Joint Legislative Committee to Develop a Master Plan recommended that the state shift to an annual per-student, General Fund allocation process for school facility construction. A guaranteed facility-restricted revenue source could allow districts to adequately plan and implement capital outlay programs. Depending on the particularities of the program, this process could also provide a more equitable form of distribution of funds.<sup>5</sup>

### ***Other states' annual allocation programs***

Several other states use an annual allocation process for their school facilities programs. The Tennessee Comptroller's 2002 report *School Capital Funding: Tennessee in a National Context* points out that forty states fund facilities through annual allocations. Thirty-two of these states allocate greater levels of funding to districts with lower tax bases. Florida, Vermont, and Maine do not directly increase aid to poorer districts, but offer higher funding or priority to districts with greater needs. Thirteen of these states offer some type of additional funding or priority to districts with higher rates of enrollment growth. Several assess district needs at the state level to determine the amount of state funding available to each district. Others have specific



funding sources for projects intended to remedy pressing health or safety issues. A few states also offer higher aid for consolidation projects or projects that use innovative solutions to reduce capital costs. Massachusetts provides higher levels of state aid to districts that maintain high maintenance ratings, hire project managers, and exceed energy efficiency standards. Finally, some states offer additional aid based on local effort. That is, districts that spend more (or tax at a higher level) receive more state aid than districts that choose not to spend as much.”<sup>6</sup>

The switch to an annual per-student allocation process could allow the state to develop a program that would more efficiently focus funds on the areas and types of construction that the state desires to see. Based upon research from other states’ programs, California could develop a funding formula that would ensure that funds are spent on the neediest districts and those that are building and maintaining a high quality of facilities.

### ***Complexity of system leads to large consultant industry***

The system of school finance has become so complex that a significant facility consultant industry has grown to help school districts through the bureaucratic maze. The California Research Bureau noted this in a 1999 report:

Consultants were current on board policies and procedures and were highly sophisticated about the complicated process that school districts must follow in order to obtain funding. They have been instrumental in shepherding proposals through the complex maze of funding phases—application to construction. School districts that did not contract with such advocates were often at a competitive disadvantage.<sup>7</sup>

These consultants, while filling a need created by an overly complex bureaucracy, are costing the districts money that could instead be used to improve design and construction quality. A switch to an annual per-student allocation for facilities could greatly simplify the funding process and reduce the need for consultants.

### ***Bond-funded projects double the state’s cost***

Using general obligation bonds to fund school facilities is costing the state twice the amount listed in the ballot because of interest payments. The LAO made this point in its analysis of the last statewide school bond proposition, Proposition 55: “If the \$12.3 billion in bonds authorized by this proposition are sold at an interest rate of 5.25 percent (the current rate for this type of bond) and repaid over 30 years, the cost over the period would be about \$24.7 billion to pay off both the principal (\$12.3 billion) and interest (\$12.4 billion).”<sup>8</sup>

The California Taxpayer Protection Committee notes this as well: “Generally, bonds more than double the cost of public works, due to the compounding of interest, plus the fees charged by bond traders, bond attorneys, and other middlemen. Thus, bonds are the most expensive way

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of paying for government projects. A pay-as-you-go approach is not only more fiscally responsible, it prevents the current generation from mortgaging the future of the generations to come.”<sup>9</sup>

An annual per-student allocation process would relieve the state of long-term interest payments for statewide bonds. The relief would not be immediate since the state has sold a number of these bonds over the last twenty years, but as bonds are paid off, the state would be able to redirect funds now being spent on interest payments to other efforts, including an annual allocation for school facilities.

Bonding would still take place at the local school district level under a state annual allocation program. This local funding mechanism would cover the remaining 50 percent of a facilities and site cost. The accrual of debt at the local level will more closely attach long-term obligations of debt service to the communities that benefit from it.

### ***Reduced need for state fiscal oversight***

A change to a per-student annual allocation of funds for facility needs of districts would entail a considerably simpler system with less need for state oversight on the front end of a project. Because of this, DGS-OPSC’s current role in the school finance program could be greatly changed to that of an audit, research and training organization.

### ***Recommendation***

**The Secretary of the State and Consumer Services Agency or his or her successor and the Secretary of Education or his or her successor should complete a study of the cost and benefits of switching to an annual per-student allocation from the General Fund by December 2005.**

A guaranteed annual allocation, restricted to facility uses and based on pupil numbers, should allow districts the security to make long-term plans and investments in their capital outlay programs. The program should allow flexibility in the use of facility funds, including borrowing against the funds, saving, and using the funds for any combination of modernization and new construction, leasing space and other options. The funds’ use should be restricted to facility needs, to prevent diversion for other types of uses.

A change to an annual allocation should not be the only option available to the state to fund facilities. Voter approval of bond funds should remain an available option to policy-makers for emergency increases in facility need.

### ***Fiscal Implications***

It is estimated that a study to determine the costs and benefits of an annual per-student allocation funding program could cost the state up to \$150,000.



The results of the study will determine the fiscal impact of the suggested funding alternative for school facility financing. Two areas to be considered in this study are the impact of bond interest payments and the possibility of reduced state administration.

### ***Avoided interest payments***

According to the *Governor's Budget 2004–2005*, the state is currently paying \$1.6 billion a year in debt service for the statewide K–12 education bonds.<sup>10</sup> This will increase by another \$675 million, for a total of \$2.28 billion a year, after the state sells the K–12 portion of the Proposition 55 bonds. A switch to an annual allocation system would represent an additional funding pressure on the state in the short term as bonds are paid off. In the long term, it is anticipated that the state will begin to save money that would have been spent on interest payments had new bonds been passed.

### ***Reduced state administration***

If an annual allocation program is implemented, it is anticipated that it will eliminate the need for the eligibility and allocation procedures of the current funding program. The reduction in duties for the DGS Office of Public School Construction could result in a reduction in staff.

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## **Endnotes**

- <sup>1</sup> California Department of General Services (DGS) Office of Public School Construction, "School Facility Program," <http://www.opsc.dgs.ca.gov/Programs/SFP+Default.htm> (last visited May 22, 2004).
- <sup>2</sup> DGS Office of Public School Construction, "School Facility Program."
- <sup>3</sup> California Legislative Analyst's Office, "A New Blueprint for School Facility Finance," by Marianne O'Malley, Chris Guyer, and Erik Skinner (Sacramento, California, 2002).
- <sup>4</sup> California Joint Legislative Committee to Develop a Master Plan, "The Master Plan for Education" (Sacramento, California, 2002).
- <sup>5</sup> California Legislative Analyst's Office, "A New Blueprint for School Facility Finance," p.9.
- <sup>6</sup> Tennessee Comptroller, Office of Education Accountability, "School Capital Funding: Tennessee in a National Context" (Nashville, Tennessee, 2002), p.14.
- <sup>7</sup> California Research Bureau, "School Facility Financing: A History of the Role of the State Allocation Board and Options for the Distribution of Proposition 1A Funds," by Joel Cohen (Sacramento, California, February, 1999), p. 6.
- <sup>8</sup> California Secretary of State, "California Primary Election Official Voter Information Guide" (Sacramento, California, March 2, 2004), <http://www.voterguide.ss.ca.gov/english.pdf> (last visited May 22, 2004).
- <sup>9</sup> California Republican Assembly, "What Is A Bond," <http://www.protecttaxpayers.com/bonds.htm> (last visited May 22, 2004).
- <sup>10</sup> California Department of Finance, "Governor's 2004–05 Budget Proposal," (Sacramento, California, 2004), p. 135.

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# Early Integration of Infrastructure and Resource Planning Necessary

## **Summary**

The lack of coordinated infrastructure planning between state, federal and local governments results in conflicts between development and conservation of natural resources and increased infrastructure project cost and delay. If California had a coordinated process to consider environmental decision-making earlier in the planning process, and merge that decision-making with local general plans, the state could streamline project delivery and more effectively protect the environment.<sup>1</sup>

## **Background**

### **Planning Framework**

Consideration of environmental preservation is needed earlier in the planning process to preserve habitat while developing infrastructure and reconciling competing land uses in a state with a rapidly growing population. At the same time, the need for economic development, affordable housing, equitable distribution of jobs and housing, and other infrastructure competes with environmental preservation. Regional agencies and local groups also have concerns about maintaining the traditional characteristics of their communities while still providing adequate jobs and housing.

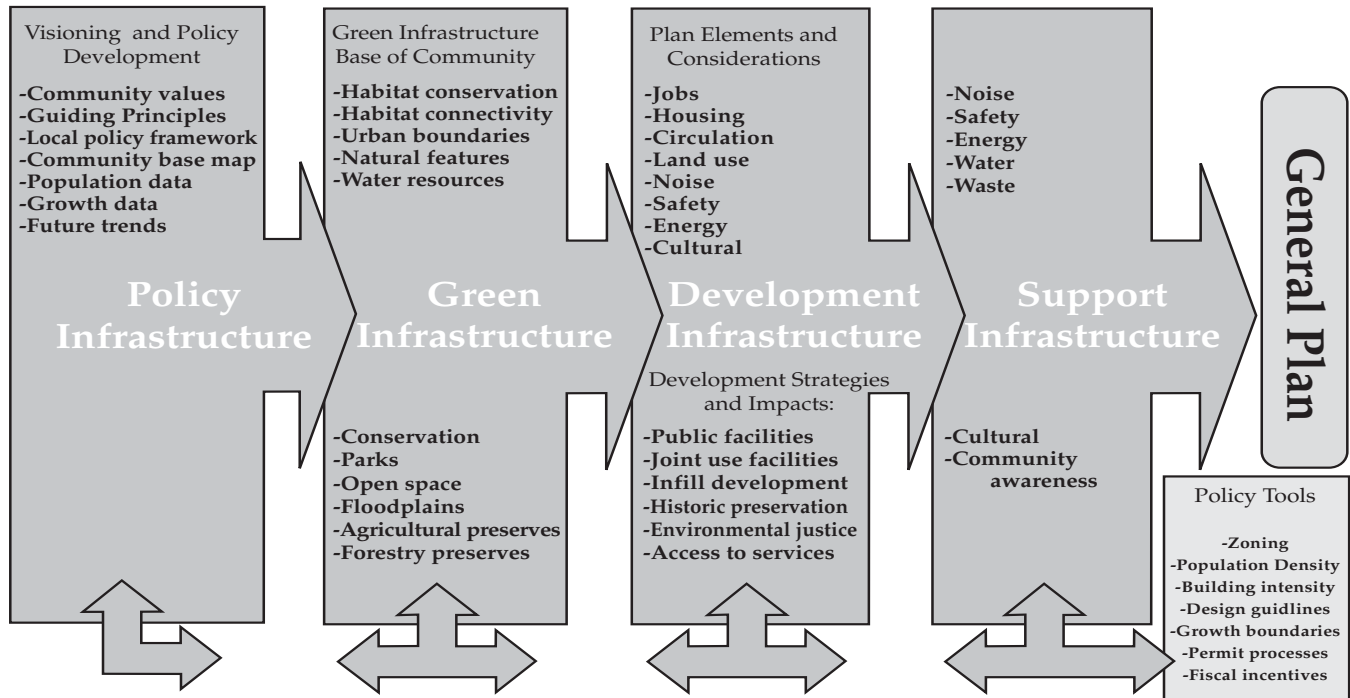
These various needs are addressed by several state resource and infrastructure agencies that may have conflicting goals. State and local planning cycles differ such that agencies find it difficult to coordinate planning and share data. For example, preserving habitat may reduce the ability of a community to approve land uses for economic development or affordable housing. It is critical to address all of these needs while respecting local planning authority in a coordinated manner.

Better coordinated and timelier decision making at the planning phase to identify environmental concerns up front has the potential to reduce later infrastructure costs. A coordinated infrastructure and resource planning effort would establish a framework to institutionalize an integrated planning process promoting infrastructure development and environmental preservation in a way that balances them according to the public values (Exhibit 1). Benefits to the public will ultimately be felt through more efficient development of projects and environmental enhancement.

## Exhibit 1

### Example:

The Merced County Partnership for Integrated Planning is developing a model transportation planning approach that involves resource and infrastructure agencies,



local governments, and the local community in the development of an in-depth environmental study. This study will assess cumulative environmental impacts, use advanced Geographic Information Systems to demonstrate the relationship between natural resources and land use decisions, and involve the public in early planning decisions to achieve rapid, streamlined project delivery.<sup>2</sup>

### ***Duplicative State and Federal Environmental Review Processes***

Both state agencies and local governments are faced with trying to interpret and satisfy complex environmental statutes and many different approval and permitting agencies. Often times infrastructure projects require compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Protection Act (NEPA). In addition, there are state and federal laws protecting specific interests such as endangered species, historic sites and water quality. Project delivery is often burdened by the complexity of the analyses required by law, by differing definitions and standards, and by introduction of environmental concerns late in the project delivery process.<sup>3</sup>





Two Interstate 5 bridges located within the boundaries of U.S. Marine Corps Base, Camp Pendleton and San Onofre State Beach Park between San Diego and Orange Counties had to be repaired to ensure the structures would be safe prior to the next flood. An “El Nino” storm year was predicted, which meant the bridge repair was critical due to a high probability for heavy rainfall and flooding. The bridges span San Mateo Creek, a salt marsh and lagoon habitat with numerous federal and state listed endangered species. Caltrans initiated a joint-meeting with state and federal representatives allowing for quick resolution of issues such as creek diversion and construction techniques that would minimize impacts to sensitive species. In these meetings, state and federal resource agencies agreed to use an existing biological study near the project site, prepared by Camp Pendleton. Wetlands creation, required for the agencies as mitigation, was implemented using “design-build” methodology. The project’s successful early partnering allowed construction of the bridge to be completed ahead of schedule.<sup>4</sup>

California is one of 15 states that must meet a state environmental protection law in addition to NEPA. Both require project sponsors to examine the potential environmental consequences of project proposals, consult with other agencies, document the analysis and make their information available to the public prior to making decisions. All projects in California that utilize federal funds or require a federal approval or permit must complete a NEPA environment analysis document in addition to the CEQA environmental review. This is a costly and time-consuming process.<sup>5</sup> Private project sponsors find time delays, paperwork and uncertainty associated with CEQA and permitting to be a detractor from the business climate.<sup>6</sup>

NEPA and CEQA employ different standards. In some aspects, CEQA is more restrictive and in others, NEPA is more restrictive. Definitions of environmental resources and depth of analysis vary between the two. The environmental process requires subject matter expertise in a number of fields. Mitigation standards also vary between the permitting agencies. This complexity makes the project approval process lengthy and unpredictable. Local agencies often prepare a CEQA document first and then later prepare a NEPA document because they need to add federal funding, or a federal permit is needed to complete the project. Compliance with federal regulations often requires additional studies and considerations. The state and federal environmental review processes are often carried out consecutively rather than concurrently, which makes the process even more time-consuming.<sup>7</sup> Additionally, state and federal agencies often provide conflicting directives to local agencies. State and federal agencies have different, and often times competing missions and processes, such as coastal zone protection, habitat preservation, affordable housing provision and labor force protection. There is no mechanism for resolving this conflict and balancing competing missions. The public is not best served by conflicts among federal and state resources and permitting agencies and state and local project sponsors. The conflicts delay the provision of needed infrastructure and make private development more costly. Local governments are frustrated in their efforts to do comprehensive planning and provide sufficient housing.

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Transportation projects require multiple federal and state agency reviews and permits. The median time to process environmental documents on major highway projects is 4.5 years. On average, it takes 13 years from initial planning to completion to open a new highway. The cost of the project increases over time while the demand continues to be unmet causing further traffic congestion.

Riverside County was blocked from meeting its growth needs in housing and transportation by ineffective efforts to address federal concerns about one species, the Stephen's kangaroo rat. County taxpayers spent \$42 million in local funds to secure 41,000 acres for habitat, yet the other 145 affected species in the area were not addressed. Therefore, the time-consuming state and federal environmental review processes failed to accomplish its very own legal intent, which is to conduct comprehensive habitat protection.

Riverside County then decided to embrace a comprehensive multi-species habitat conservation plan along with a Riverside County General Plan update and two major transportation corridor studies. The Riverside County Integrated Project was formed to coordinate federal and state agency reviews. Three years later, a comprehensive habitat plan covering 146 species was adopted and approved by the federal agencies. Local developers now have a streamlined environmental review process and will know in advance of land investment where they can build. A habitat reserve of 500,000 acres is set aside. Two transportation corridors that will ease the commute to jobs have been approved for the environmental review phase and the US Department of Transportation has designated the projects for streamlined approval.<sup>8</sup>

**Example:**

The Tri-Agency Partnership was established by the California Secretaries of the Business, Transportation and Housing, Resources and Environmental Protection Agencies through a Memorandum Of Understanding in 2001. The agency secretaries committed their agencies to working together to develop streamlined environmental review and permitting processes and to promote collaborative planning processes in high-growth regions of California. An effort is underway on State Route 99 to assess the key community, transportation and environmental issues in the corridor in order to address them early in the planning process, and to speed project delivery. The Tri-Agency Partnership is a model that can be revitalized and directed to carry out these recommendations.<sup>9</sup>

**Recommendation**

The Governor should create a "State Plan Coordination Council", by December 2005, consisting of the Governor's Cabinet members or their representatives and appoint the Secretary of Business, Transportation and Housing to be the chair of this Council. This coordination council will be responsible for the establishment of policy to assure the integration of state plans conducted by state agencies through the following actions:



1. Direct state agencies to implement an interagency issue resolution process. Establish appropriate timelines for completion that are focused on expeditious project delivery and environmental betterment. Define roles of lead agencies at the state and local levels.<sup>10</sup>
2. The Resource Agency and the Business, Transportation and Housing Agency or their successors will write a policy framework that allows infrastructure providers to collaborate with resource agencies early in the planning process to identify and commit to mitigation.
  - a. The Business, Transportation and Housing Agency and Resource Agency departments or their successors will use Geographic Information Systems and other mapping technologies to help federal, state and local agencies identify important resources and potential conflicts during the planning phase to provide better opportunities to explore options and resolve conflicts prior to project development.
  - b. The Resource Agency and Business, Transportation and Housing Agency or their successors will ensure that state infrastructure projects are balanced with the needs for important agricultural and natural lands through their planning and funding policies.
3. The Resource Agencies and Business, Transportation and Housing Agency or their successors should work together to streamline CEQA and other permitting processes to expedite project delivery.
  - a. State agencies will seek delegation from federal agencies to incorporate federal environmental requirements into state environmental processes.
  - b. Resource Agency and Business, Transportation and Housing Agency or their successor departments will identify and implement concurrent environmental and permitting processes and seek to strengthen technical assistance to local governments for CEQA, NEPA and other environmental reviews.
4. The Business, Transportation and Housing Agency or its successor, in partnership with local government, will provide plans that include incentives for infrastructure projects and services to existing communities to support development that uses existing land within the community to its highest use and growth contiguous with established urban boundaries.

### ***Fiscal Impact***

Environmental and design work for infrastructure projects is often repeated because it must be updated or redone to satisfy differing or new requirements among federal and state agencies. The current process is costly and it takes too much time. The fiscal impact of any combination of recommendations to improve the coordination between infrastructure and resource planning would include economic benefits associated with accelerated project delivery and inflation savings, particularly in the area of real estate purchase. Accelerated project delivery allows existing environmental staff to begin work on new projects sooner; using staff more effectively.<sup>11</sup> Caltrans identifies potential savings of three percent of construction capital costs for each year of delay avoided.<sup>12</sup> In the State Commission on Building for the 21<sup>st</sup> Century Report, it was noted that there was a need for approximately \$100 billion in infrastructure improvements over the next decade. Even with an initial investment to develop joint resource conservation (\$3 million) and infrastructure plans, California could still save millions of dollars

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and build more projects in a more timely fashion while investing mitigation funds for resource preservation.<sup>13</sup> These directives can be accomplished by redirecting existing state resources.

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## Endnotes

- <sup>1</sup> Interview with Mike McCoy, Chair, California Planning Roundtable and Co-Director of the Information Center for the Environment, University of California at Davis, Sacramento, California (May 6, 2004).
- <sup>2</sup> Interview with Jesse Brown, Executive Director, Merced County Association of Governments, Merced, California (April 11, 2004).
- <sup>3</sup> Interview with George Dondero, Chair, Rural County Task Force, Sacramento California (March 15, 2004).
- <sup>4</sup> E-mail from Charles Stoll, District 11, Environmental Division Chief, Caltrans, San Diego (April 12, 2004).
- <sup>5</sup> Interview with George Dondero, Chair, Rural County Task Force, Sacramento California (March 15, 2004).
- <sup>6</sup> Interview with Richard Hall, Director—Corporate Government Affairs, Intel Corporation, Sacramento, California (May 28, 2004).
- <sup>7</sup> Interview with California Association of Councils of Governments (CalCOG), Sacramento, California (March 15, 2004).
- <sup>8</sup> Interview with Cathy Rodriguez Bechtel, Director of Planning and Programming, Riverside County Transportation Commission, Riverside, California (May 5, 2004).
- <sup>9</sup> Interview with Brian J. Smith, Deputy Director, Planning, Local Assistance and Modal Programs, California Department of Transportation, Sacramento, California (March 23, 2004).
- <sup>10</sup> Bay Area Council Task Force on the Relationship of Government Operations and Regulations to Economic Competitiveness, “Report of the CEQA Work Group,” (San Francisco, California, February 1996).
- <sup>11</sup> E-mail from Charles Stoll, District 11, Environmental Division Chief, Caltrans, San Diego (May 30, 2004).
- <sup>12</sup> E-mail from Matthew E. Bailey, Office of Program Delivery, Division of Project Management, Caltrans (May 26, 2004).
- <sup>13</sup> E-mail from David Harris, CERES, California Resources Agency (May 26, 2004).



# Infrastructure is Necessary for Economic Development

## **Summary**

Maintaining California's existing infrastructure assets while developing new infrastructure to meet the state's growing needs is vital to continue California's economic growth, and to attract and retain businesses.

## **Background**

### **Attract and retain business**

Infrastructure—highways, bridges, airports, seaports, water supply and energy distribution systems—is the foundation upon which California has built one of the world's largest economies.<sup>1</sup> However, investment in the state's water supply, transportation and educational facilities has not kept pace with population growth for decades.

In an effort to limit growth, environmental groups, local constituencies, and some local governments oppose needed infrastructure. Regardless of those efforts, the state's population continues to grow, which drives the need for additional seaports and airports, as well as highways and rail lines to supply necessary goods and sustain the economy.<sup>2</sup>

Without proper investment in infrastructure, California will be bypassed by other states and countries in economic growth and the state's businesses will be unable to compete in a global market. Private sector project sponsors say that time delays, paperwork and uncertainty associated with the California Environmental Quality Act (CEQA) and permitting processes are factors in deciding whether to do business in the state.<sup>3</sup>

**Example:** Speaking at the Sacramento Metropolitan Chamber of Commerce, Hewlett-Packard (HP) Chairman and CEO Carly Fiorina said that HP opted to move 500 manufacturing jobs from Roseville to Houston for a number of reasons including what she described as attentive state officials in Texas, better education, energy, and transportation systems, and a higher standard of living.<sup>4</sup>

Significant changes in the way California works with the private sector to provide necessary infrastructure are required to reverse these concerns. As California Environmental Protection Agency Deputy Secretary Maureen Gorsen's memo regarding government reform to Governor Schwarzenegger's Transition Team stated, "We believe that time and energies are better spent on improving decision making and accountability, by organizing the alignment of decisions with that of the public interest."<sup>5</sup>

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### ***Public-private partnerships***

Infrastructure provides the foundation for a strong economy and requires responsible, continuous investment to maximize the benefits to California. Local, state and federal governments have invested billions of dollars over the years to create a vital network of sewers, waterlines, roads, power distribution and reservoirs.<sup>6</sup> The public expects electricity, water and transportation facilities will be available when they need them, and they do not differentiate between public or private ownership of the infrastructure. The state's aging infrastructure requires maintenance and the private sector may not have sufficient resources to do that maintenance without public financing mechanisms. Unless existing assets are maintained and new infrastructure is added to meet growth, the value of past investment is diminished and the entire system deteriorates—along with California's economy.

**Example:** The City of Coachella is located at the intersection of Interstate 10 and State Route (SR) 86, also known as the North American Free Trade Agreement Highway. The city links Mexicali, Mexico and the main Union Pacific East-West Alameda Rail Corridor. In the past two years, several major manufacturers with hundreds of employees decided not to locate in Coachella because of the lack of reliable access, even though the properties have all the other necessary infrastructure and facilities. Coachella's economic development is hampered by lack of funding for a railroad grade separation on SR 86 that would allow truck and local traffic to move reliably to the properties without having to wait for freight trains to clear the tracks.<sup>7</sup>

Several other states and foreign countries have partnered with the private sector to add major new infrastructure projects. Long-term franchises are competitively awarded to private firms to design, finance, build and operate the infrastructure. If the project is economically viable, private capital markets will fund the project and issue bonds. In the case of highways, tolls can be charged to pay for bonds, maintenance and operation. Some states provide the private sector companies with rights-of-way, and pay for environmental work. Many projects have a mixture of public and private funding.<sup>8</sup>

**Example:** The University of California Irvine has teamed with Catellus Development Corporation to develop a 1,100 unit housing project on the Irvine campus. UC Irvine's Research Park also leases sites to research-oriented companies that are interested in linking with university researchers. The park has been leased to the Irvine Corporation. Under the terms of the agreement, Irvine Corporation develops and leases research space to firms that promise to participate in university research projects and offer internships to UC Irvine students.<sup>9</sup>





### **Recommendation**

**The following actions are recommended to assist in the retention and recruitment of business development through provision of infrastructure:**

**The Governor should issue an Executive Order directing the Business, Transportation and Housing Agency, or its successor, to carry out the following:**

- The Business, Transportation and Housing Agency or its successor should establish a single-point-of-contact for business that is empowered to negotiate infrastructure issues on behalf of the state. The organization would be similar to the “Red Teams” used by Governor Pete Wilson’s administration under the former Director of the Department of Commerce, Julie Meier Wright;<sup>10</sup>
- The Business, Transportation and Housing Agency, or its successor, through adoption of policy should provide priority funding or financing tools for joint-use, public-private infrastructure plans and projects;
- The Business, Transportation and Housing Agency, or its successor should develop, in partnership with local government, funding mechanisms for infrastructure for economic development;
- The Business, Transportation and Housing Agency, or its successor, should work with the private sector to adopt policy to take advantage of opportunities to maximize the performance of the state’s infrastructure;
- The Business, Transportation and Housing Agency, or its successor, should perform a cost/benefit analysis on location of infrastructure in relation to economic development in communities to ensure that infrastructure investments support business investment in the state; and
- The Resources Agency and the Business, Transportation and Housing Agency, or their successors, should identify and implement ways to improve environmental and permitting processes for infrastructure, and seek to strengthen technical assistance to private sponsors on CEQA and other environmental reviews.

### **Fiscal Impact**

The Federal Highway Administration has estimated that transportation has a significant impact on the economy, indicating that every dollar spent on road construction yields 29 cents in increased productivity.<sup>11</sup> This productivity has a ripple effect through the economy, generates real monetary savings to businesses, and is invested in further spending within the state, resulting in greater economic growth. In the State Commission on Building for the 21<sup>st</sup> Century Report, it was noted that there was a need for approximately \$100 billion in infrastructure improvements during the next decade.<sup>12</sup> If all types of infrastructure construction costs yield a 29 cent increase in productivity per dollar spent, California could have a \$29 billion boost to the economy. Retaining existing businesses and attracting new ones will increase the state tax base. This increased tax base will permit further investment in infrastructure, as well as other programs of benefit to the public.



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## Endnotes

- <sup>1</sup> Public Policy Institute of California, *"Making Room for the Future: California's Infrastructure,"* by David Dowall and Jan Whittington (San Francisco, California, 2003), p. 14–18.
- <sup>2</sup> California Business Roundtable, *"Our Issues—Infrastructure"* (Sacramento, California, January, 2004), p. 1–2.
- <sup>3</sup> Interview with Richard Hall, director, Corporate Government Affairs, Intel Corporation, Sacramento, California (May 28, 2004).
- <sup>4</sup> "Clint Swett: Fiorina: Texas Offered More," *"Sacramento Bee"* (April 30, 2004), p. D-1.
- <sup>5</sup> Letter from Marueen Gorsen, deputy secretary, Environmental Protection Agency to Governor Schwarzenegger's Transition Team, March 8, 2004.
- <sup>6</sup> California Rebuild America Coalition, *"Foundation for the Future—Rebuilding California Infrastructure for the 21<sup>st</sup> Century,"* p. 3, <http://www.calrac.org/pdf/rebuild.pdf> (last visited June 12, 2004).
- <sup>7</sup> California Department of Transportation, *"Transportation for Economic Development"* (Sacramento, California, June 2003), p. 1–10.
- <sup>8</sup> Reason Public Policy Institute, *"Addressing California's Highway Problems in a Time of Fiscal Crisis,"* by Robert Poole, Jr. (California), p. 2.
- <sup>9</sup> Public Policy Institute of California, *"Making Room for the Future: California's Infrastructure,"* by David Dowall and Jan Whittington (San Francisco, California, 2003), p. 175.
- <sup>10</sup> Interview with Richard Hall, director, Corporate Government Affairs, Intel Corporation, Sacramento, California (May 28, 2004).
- <sup>11</sup> Federal Highway Administration, *"Contributions of Highway Capital to Output and Productivity Growth in the U.S. Economy and Industries,"* by Ishaq Nadiri and Theofanis Mamuneas (Washington, D.C., August 1998).
- <sup>12</sup> California Commission on Building for the 21<sup>st</sup> Century, *"Invest for California"* (Sacramento, California, September 2001), p. 1–10.



# Streamline the Environmental Review Process to Discourage Sprawl and Revitalize Older Developed Urban Areas

## **Summary**

Many California urban centers have vacant and underutilized land surrounded by sprawling suburbs. Sprawl is costly in terms of infrastructure and public service costs, congestion and loss of open space. Attempts to encourage revitalization of older, developed urban areas as an alternative to sprawl are thwarted in part by the state's environmental review process. The environmental review process should be streamlined to encourage new development on vacant, underused land in developed urban areas.

## **Background**

Infill development is the strategy that is employed in older, developed urban areas that have pockets of vacant or underused land. An infill area is an urbanized area within a city boundary or within a designated unincorporated area that is substantially surrounded by existing urban uses.<sup>1</sup> Mixed-use development incorporates several different land uses, such as residential, retail, employment and entertainment, within a reasonable walking distance of each other.<sup>2</sup> Infill and mixed-use development encourages more compact development and greater efficiency in use of land, public services and infrastructure.<sup>3</sup> Infill and mixed-use development offers many benefits: it can reduce sprawl, revitalize downtowns and older neighborhoods, make it easier to walk or take transit to get around, improve the jobs-housing balance and provide residents with a greater variety of housing options.

Despite strong residential and office markets in many U.S. cities in recent years, relatively little infill development has taken place nationwide.<sup>4</sup> Although Section 21159.24 of the California Public Resources Code allows an exemption from the environmental review process for certain infill housing projects, it is too restrictive to encourage reuse of vacant and underused land in older, developed urban areas. It is not adequate because infill development often includes mixed-use and commercial components that are not allowed under the existing exemption.<sup>5</sup>

## **California environmental review process**

The California Environmental Quality Act (CEQA) sets forth the statutory requirements for the state's environmental review process. CEQA requires all public agencies to inform decisionmakers and the public of potential significant environmental impacts of proposed projects.<sup>6</sup> CEQA also applies to any private development that requires governmental approvals. The requirement applies to most infill housing and mixed-use development projects.<sup>7</sup>

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According to John Landis, Chair of the Department of City and Regional Planning at the University of California at Berkeley, developers view CEQA as a barrier that adds time, cost and uncertainty to infill and mixed-use development projects.<sup>8</sup> This is because a developer must prepare a separate environmental review on each proposed infill and mixed use development project. The project-by-project environmental review creates uncertainties because there are too many opportunities for blocking projects for non-environmental considerations. The environmental review process opens projects to legal challenge. Not all of these challenges are related to environmental protection. CEQA is often used by neighborhood opposition groups (known in California as “Not in My Back Yard” or NIMBY protests) to block multi-family infill housing projects.

Mahal Plaza in Yuba City, California, for example, was built in 1990 to provide multi-family housing for farmworker families. This infill housing development was built on underused land with many attractive features, including proximity to agricultural jobs, shopping, schools and transit. This project was delayed for five years due to the environmental review process used by community residents who opposed the project. The project’s non-profit developers worked to counter claims that the project would overcrowd schools, decrease property values, increase crime, increase traffic and overburden public services. The project did not cause any of these impacts and in fact, a market rate housing development has been constructed next to it.<sup>9</sup>

### ***The general plan and the master environmental impact report***

The basic planning tool for communities in California is the general plan. California’s general plan law requires local governments, counties and cities, to adopt long-range plans, goals, objectives and policies that address development, conservation, housing and circulation. The general plan sets policy on how a community will grow, including where development will occur and what type of development will be encouraged.<sup>10</sup>

CEQA requires that an environmental impact report be prepared on the general plan. Despite the environmental studies done on the general plan, developers of subsequent projects must do further environmental studies to obtain approval for their projects. This is perceived by many in the development community to be redundant in older, developed urban areas where open space and habitat are already minimal. It also creates the uncertainty that discourages infill development.

An alternative approach proposed by proponents of infill and mixed use development is to use a comprehensive version of the environmental impact report called a Master Environmental Impact Report (commonly known as Master EIR, referred herein as “Master Report”).<sup>11</sup> The Master Report for the general plan can be written along with the general plan to encourage infill and mixed use development as an environmentally superior alternative to sprawl.<sup>12</sup>



To encourage infill and mixed use development proposals, CEQA can be amended to give better incentives for using the Master Report approach to the general plan environmental studies. CEQA can be amended to replace the current exemption for infill housing with a broad statutory exemption for infill and mixed use development. A statutory exemption for infill and mixed-use development would allow developers to propose projects in urbanized areas that are already covered under a Master Report for the general or specific area plan. As long as the proposed project is consistent with the general plan policies and the Master Report, the proposed project would be able to move forward without further environmental studies. This statutory exemption can provide a powerful incentive to developers if it is coordinated with streamlined permitting processes and expedited approval for subsequent projects that are consistent with the general plan or specific area plan.

According to the National Association of Realtors, one of the most significant barriers to infill development is the lengthy environmental and permit reviews by multiple decisionmakers and staff reviewers. It adds uncertainty in the outcomes of the complex review and approval processes. This adds to the risk of a project, which may already be perceived as high risk when proposed for a location without a demonstrated market for infill development. The realtors suggest allowing minimal review for compliance with the general plan and Master Report.<sup>13</sup> This would increase incentives for private development on vacant, underused land, which would give California's communities better tools to direct growth.<sup>14</sup>

### ***Best practices***

California is one of fifteen states that have an environmental impact assessment law modeled after the National Environmental Policy Act; however, no state has as rigorous an environmental review process as California's.<sup>15</sup> Three states, Maryland, New Jersey and Washington, have taken an alternative approach and have passed state laws that integrate environmental protection and general plan law. These states' laws guide comprehensive planning at the state and community level, emphasizing compact growth and infill development. Local land use plans must conform to the states' guidance that incorporates requirements for infill development at the local level. Maryland has a twenty-year history of state law, funding, incentives and guidance for infill development at the local level. Maryland enacted legislation in 1997 that sets forth the state's growth management vision and requires local comprehensive planning that supports infill development. Subsequent laws have been passed to provide funding and other incentives to support infill development.<sup>16</sup> In New Jersey, the state's smart growth program provides funding for communities to focus general plans on mixed use "centers"<sup>17</sup>. Washington addresses infill development through a state growth management act. The city of Seattle has based its general plan on the state law and has set policy to favor infill development through its urban village strategy.<sup>18</sup>

Several communities in California have updated their general plans and Master Reports to promote infill and mixed use development. They have moved to a type of land use planning called "form-based codes". In contrast to traditional planning practice that separates land use

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types, the form-based codes designate neighborhoods, districts and corridors where a mixture of land uses and housing types are preferred and sets aside land for open space and public services. The form-based code general plans also consider how the specific areas in the community will be tied together by circulation patterns that allow for walking, driving and transit.<sup>19</sup> The form-based general plans and Master Reports provide direction to developers on what types of development will be approved without further environmental study or minimal further study and will receive expedited permitting processes. Some communities that are trying variations of the new comprehensive form-based general plan and Master Report process include Azusa, Petaluma, Sonoma, Cotati, Hercules, Nevada City, Salinas and King City.<sup>20</sup>

### ***Recommendations***

- A. The Governor should work with the Legislature to introduce and amend the Public Resources Code to exempt from further environmental review, infill and mixed-use development projects that are consistent with local government General Plans and accompanying Master Report for older developed urban areas.**

Further, Section 21159.24 of the Public Resources Code, which allows a narrow exemption for infill housing, should be repealed in favor of the new section.

- B. The Governor should direct the appropriate state agencies to support local infill development through state policies, plans and investments.**

State agencies should support the use of the Master Report and General Plan by local governments to streamline the environmental review process and approvals of infill and mixed use development projects.

### ***Fiscal Impact***

The proposed exemption should lead to more infill and mixed-use development projects. Private developers in California will have more incentive to develop on vacant, underused land in existing urban areas because they will not face the uncertainty and costs of additional environmental review beyond the general plan Master Report. Property and sales tax revenues are estimated to increase with increased use of vacant land; however, this would be offset to some degree by the cost of infrastructure and public services to support the infill and mixed use development. The type of housing and mix of retail and commercial units will dictate the level of services the local government would need to provide. It can be projected that more compact development and reuse of vacant and underused land in California will balance growth patterns between older urban and new suburban areas, provide more housing choices and the possibility of living near jobs, and lessen strain on California's transit system.



## Endnotes

- <sup>1</sup> The Urban Land Institute, "Putting the Pieces Together, State Actions to Encourage Smart Growth Practices in California," (Washington, D.C., 2002).
- <sup>2</sup> Gary Binger and Paul Sedway, "Partnering for Smart Growth Success," *Urban Land* (September 2003) p. 96.
- <sup>3</sup> California Planning Roundtable and the Department of Housing and Community Development, "Myths and Facts About Affordable and High Density Housing," (Sacramento, California, November 2002), p. 4.
- <sup>4</sup> University of California at Berkeley, Department of City and Regional Planning, "Infill Development in the San Francisco Bay Area: Current Obstacles and Responses," by Stephen M. Wheeler (Berkeley, California, November 2001).
- <sup>5</sup> Pub. Res. C. Section 21159.24.
- <sup>6</sup> Pub. Res. C. Section 21000 et seq.
- <sup>7</sup> Unless exempted by Pub. Res. C. Section 21159.24.
- <sup>8</sup> Presentation by John Landis, chair, Department of City and Regional Planning, University of California at Berkeley, "Opening the Doors to Infill Housing," Sacramento, California, May 11, 2004.
- <sup>9</sup> California Coalition for Rural Housing, Planning and Conservation League Foundation, "Smart Growth and Affordable Housing: Best Practices in the Central Valley," (Great Valley Center, Modesto, March 30, 2003).
- <sup>10</sup> Gov. C. Section 65300 requires that every city and county adopt a comprehensive, long term general plan. The general plan must cover a local jurisdiction's entire planning areas and address the broad range of issues associated with a city's and county's development. The general plan identifies the community's land use, circulation, environmental, economic, and social goal and policies as they relate to land use and development. The plan provides a basis for local government decision making on development approvals.
- <sup>11</sup> Governor's Office of Planning and Research, 2003 General Plan Guidelines, (Sacramento, California, October 2003); and Title 14. California Code of Regulations, Chapter 3. Article 11.5, Sections 15175 to 15179.5.
- <sup>12</sup> Governor's Office of Planning and Research, "White Paper on Smart Growth Policy in California," by Robert Alminana, Paul Crawford, Andres Duany, Laura Hall, Steve Lawton, David Sargent, (Sacramento, California, February 10, 2003).
- <sup>13</sup> National Association of Realtors, "Best Practices to Encourage Infill Development," by Robinson and Cole, LLP, (Washington, D.C., December 2002).
- <sup>14</sup> The Urban Land Institute, "Putting the Pieces Together, State Actions to Encourage Smart Growth Practices in California," (Washington, D.C., 2002).
- <sup>15</sup> California Policy Seminar, "Fixing CEQA: Options and Opportunities for Reforming the California Environmental Quality Act," by John D. Landis, Rolf Pendall, Robert Olshansky and William Huang (Berkeley, California, 1996), p.8.
- <sup>16</sup> Maryland Department of Planning, "Managing Maryland's Growth, Models and Guidelines for Infill Development," (Baltimore, Maryland, October 2001).
- <sup>17</sup> Monmouth County, New Jersey, "Route 9/Western Monmouth Development Plan," by Orth-Rodgers Associates, Inc. in association with Hillier, (Monmouth County, New Jersey, August 2003).
- <sup>18</sup> City of Seattle, Department of Planning and Development, "Comprehensive Plan, Toward a Sustainable Seattle," (Seattle, Washington, 1994).
- <sup>19</sup> California Governor's Office of Planning and Research, "White Paper on Smart Growth Policy in California," by Robert Alminana, Paul Crawford, Andres Duany, Laura Hall, Steve Lawton, David Sargent, (Sacramento, California, February 10, 2003).
- <sup>20</sup> Interview with Scott Morgan, senior planner, Governor's Office of Planning and Research (April 16, 2004).







# Lengthy Hospital Construction Approvals are Impacting Patient Care

## **Summary**

The Office of Statewide Health Planning and Development (OSHPD) has a large amount of hospital retrofitting and rebuilding projects in their building plan approval program. OSHPD expects with current staff that the time to finish the review of some of these projects could take as long as two years.

## **Background**

Health and Safety Code Sections 127000–130070 establish OSHPD and grant approval authority over the construction of Health Care facilities.

Health and Safety Code Section 129675 establishes the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983, which requires that, by January 1, 2008, all hospitals in California improve, or remove from acute care service, buildings that pose a significant risk of collapse and danger to the public.

Health and Safety Code Section 129795 establishes the Hospital Building Fund as a continuously appropriated fund for the purposes of carrying out the Alquist Act.

Prior to initiating improvements, hospitals must receive required construction approvals from OSHPD. These approvals incorporate several disciplines including review by structural and mechanical engineers and fire and life safety reviews. OSHPD directorship acknowledges that in Fiscal Year 2002–2003, OSHPD was a factor in the ability of hospitals to receive necessary approvals to complete seismic retrofitting.

When a project is submitted to OSHPD there is an immediate check done to see if the plans and application are complete. If it is determined complete enough to continue, it enters into a queue for an array of reviews. After the reviews are complete, OSHPD will return the plans to the hospital architect for corrections. The plans are then sent back into OSHPD for a check, called a “back-check.” If the plans are deemed acceptable by OSHPD, the office is done with the project. If there are still problems or new ones, it gets sent back to the hospital’s architect for correction until OSHPD agrees that the plans meet the building code requirements. In all, OSHPD estimates that an average project with full staffing takes 12–14 months.

In 2003, half of the projects submitted with a major structural component will take one year or longer for approval and one-quarter of them are expected to take longer than 450 days. This backlog was created by increased workload created by the Alquist Act, coupled with the state hiring freeze. This delay has spurred bad press and legislation.

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The FY 2003–2004 Governor’s Budget provided an appropriation of \$1,054,000 from the Hospital Building Fund and 12.2 PYs in 2003–2004 to provide review of hospital building plans. According to OSHPD directorate, these positions, coupled with redirection, created 19 new positions targeted to address the bottleneck in meeting the workload of the Alquist Act. Sixteen of these positions have been filled and three are in the recruitment process.

The FY 2004–2005 Governor’s Budget proposes an appropriation of \$5,399,000 from the Hospital Building Fund and 47.5 PYs in 2004–2005 to provide review of hospital building plans. According to OSHPD directorate, 31 of these positions were established to address the bottleneck in meeting the workload of the Alquist Act, making the position commitment to this bottleneck at 50 new positions. In addition, OSHPD will have the ability of contracting in the amount of \$3.5 million for additional construction review work.

OSHPD is concerned about their ability to hire qualified staff as their salary range is below comparable private and public sector job opportunities. Additionally, the time needed to train new employees is expected to delay full use of the new staff when hired. These two factors cast doubt upon OSHPD’s ability to staff up fast enough to meet the current demand in a reasonable time.

The current process for the use of OSHPD consultants to review plans involves another check by OSHPD after having received the consultant’s comments. While this may cut some time out of the process by ensuring a more complete set of plans being submitted to OSHPD, the final review is still done at the state level. The use of consultants should reduce time in the approval process but under the current program this potentially adds time to the process.<sup>1</sup>

It should be noted that not all hospital project delays are the fault of OSHPD. Hospital owners and the professional licensed architects and engineers they employ also play a role in project delays. The existing review and area compliance structure has led to frequent and costly delays, but sometimes, it is difficult to determine whether the delays are due to OSHPD, architects, engineers, contractors or hospital owners.<sup>2</sup>

AB 2973 (Cohn, 2004) would set time limits for OSHPD’s initial review at 90 days for complete submittals. The California Healthcare Association is proposing amendments to the bill to require OSHPD to develop regulations to establish criteria for approving outside agencies that may provide an independent review of hospital projects exceeding \$20 million, prior to the plan being submitted to OSHPD. The outside review entity would be available to review hospital plans and certify complete plans that are compliant with the state’s building code. OSHPD would be required to approve or reject a certified application within 90 days. The amended language’s time limit would force the prioritization of resources within OSHPD to ensure that a mix of consultants, approved independent reviewers and state employees deliver a timely, cost-effective review service.<sup>3</sup>



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## **Recommendations**

- A. The Secretary for Health and Human Services, or its successor, should direct the Office of Statewide Health Planning and Development (OSHPD), or its successor, to finish the initial review of complete applications in the current queue within 90 days or 90 days after the submission date of new projects. This shall be accomplished using all necessary consultant resources.
- B. The Secretary for Health and Human Services, or its successor, should direct OSHPD, or its successor, to establish an approval process for outside entities to be eligible to be used as independent plan reviewers and for OSHPD to finish review of these independent reviewer-approved plans within 90 days of submittal to OSHPD.
- C. The Secretary for Health and Human Services, or its successor, should direct OSHPD, or its successor, to perform a business process review, by March 31, 2005, on how the OSHPD hospital plan review, area compliance and inspection of hospital buildings can meet the intent of the state's Hospital Facilities Seismic Safety Act (HFSSA) while taking into consideration the state's goals for economic development and improved patient care. The study should establish a timely, consistent standard for plan checking and field review, and define any legislative changes that are necessary in order to carry out the intent of HFSSA in a more efficient manner.

## **Fiscal Impact**

There may be some additional costs to contract out plan reviews and to perform the business process review. These costs, however, will be funded by the Hospital Building Fund. There is a sufficient balance in the fund for this purpose.

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## **Endnotes**

- <sup>1</sup> Interview with John Roskopf, chief counsel, Office of Statewide Health Planning and Development, and Chris Tokas, program manager, Office of Statewide Health Planning and Development, Sacramento, California (May 12, 2004); and interview with Chris Tokas, program manager, Office of Statewide Health Planning and Development, Sacramento, California (May 13, 2004).
- <sup>2</sup> California Healthcare Association, "California Hospital Design & Construction Approval Process: 'An Opportunity for Improvement,'" by California Healthcare Association Task Force on Hospital Design, Plan Review & Area Compliance (Sacramento, California, October 30, 2003), p. 4.
- <sup>3</sup> Interview with Roger Richter, senior vice president, Professional Services, California Healthcare Association, Sacramento, California (May 12 and 13, 2004).

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**Infrastructure**  
**Fiscal Impact Table**  
(Dollars Displayed in Thousands)

Issue Number	Issue Description	2004-05			2005-06			2006-07			2007-08			2008-09			5-Year Cum. Total All Funds
		Savings/General Fund	(Costs)/Other Funds	Revenue	Savings/General Fund	(Costs)/Other Funds	Revenue	Savings/General Fund	(Costs)/Other Funds	Revenue	Savings/General Fund	(Costs)/Other Funds	Revenue	Savings/General Fund	(Costs)/Other Funds	Revenue	
INF 01	Use of Few Models for Project Delivery Results in Missed Opportunities for Lowering Cost and Speeding Delivery	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 02	Adopt Performance and Warranty Specifications to Improve the Quality of Highway Construction	\$0	\$0		\$0	\$2,800		\$0	\$5,600		\$0	\$8,400		\$0	\$11,200		\$28,000
INF 03	The State is not Taking Advantage of all Opportunities to Reduce the Cost of Construction Contracts	\$0	\$16,500		\$0	\$22,000		\$0	\$22,000		\$0	\$22,000		\$0	\$22,000		\$104,500
INF 04	Performance Measures Are Needed in Traffic Operations	\$0	\$0		\$0	(\$100,000)		\$0	(\$150,000)		\$0	(\$150,000)		\$0	(\$150,000)		(\$550,000)
INF 05	Need for High-Occupancy/Toll Facilities to Reduce Traffic Congestion and Generate Revenue to Cover Project Costs	\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		CBE
INF 06	High-Performance Building Design	\$0	\$0		\$0	\$0		(\$34,000)	\$0		(\$17,000)	\$0		\$0	\$0		(\$51,000)
INF 07	The State Needs to Restructure the Administration over the State Water Project	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 08	CALFED Bay-Delta Program is Not Functioning Efficiently	(\$150)	(\$150)		\$200	\$200		\$200	\$200		\$200	\$200		\$200	\$200		\$1,300
INF 09	California Needs a Strong Water Policy	\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		CBE

**Infrastructure  
Fiscal Impact Table**  
(Dollars Displayed in Thousands)

Issue Number	Issue Description	2004-05			2005-06			2006-07			2007-08			2008-09			5-Year Cum. Total All Funds
		Savings	(Costs)/Revenue		Savings	(Costs)/Revenue		Savings	(Costs)/Revenue		Savings	(Costs)/Revenue		Savings	(Costs)/Revenue		
		General Fund	Other Funds		General Fund	Other Funds		General Fund	Other Funds		General Fund	Other Funds		General Fund	Other Funds		
INF 10	Reduce the State's Leasing Costs	\$7,125	\$7,125		\$14,250	\$14,250		\$14,250	\$14,250		\$14,250	\$14,250		\$14,250	\$14,250		\$128,250
INF 11	Tapping Surplus Property Assets	\$47,200	\$0		\$47,200	\$0		\$95,000	\$0		\$95,000	\$0		\$95,000	\$0		\$379,400
INF 12	Improve Efficiency of Extra Enforcement Program in Highway Work Zones with Fewer Resources	\$0	\$0		\$0	\$5,600		\$0	\$5,600		\$0	\$5,600		\$0	\$5,600		\$22,400
INF 13	The State Owns Several Routes that it Should Relinquish to Local Agencies	\$0	\$0		\$0	\$108,000		\$0	\$108,000		\$0	\$108,000		\$0	\$108,000		\$432,000
INF 14	Reduce Telecommunications Costs by Modifying Cost Monitoring and Auditing Processes	\$1,912	\$1,913		\$2,550	\$2,550		\$2,550	\$2,550		\$2,550	\$2,550		\$2,550	\$2,550		\$24,225
INF 15	Revenues for Transportation Projects are Increasingly Inadequate to Fund Needed Improvements	\$0	\$0		\$0	\$0		\$0	\$560,000		\$0	\$700,000		\$0	\$700,000		\$1,960,000
INF 16	Federal Funding for California Falls Short	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 17	Integrate the State's Infrastructure Research and Development Programs	\$0	\$0		\$0	\$350		\$0	\$983		\$0	\$983		\$0	\$983		\$3,299
INF 18	Consolidate and Coordinate State Infrastructure Planning and Programming	\$0	\$0		\$0	\$581		\$0	\$581		\$0	\$581		\$0	\$581		\$2,324



## Infrastructure

### Fiscal Impact Table

(Dollars Displayed in Thousands)

Issue Number	Issue Description	2004-05		2005-06		2006-07		2007-08		2008-09		5-Year Cum. Total All Funds
		Savings(Costs)/Revenue General Fund	Other Funds	Savings(Costs)/Revenue General Fund	Other Funds	Savings(Costs)/Revenue General Fund	Other Funds	Savings(Costs)/Revenue General Fund	Other Funds	Savings(Costs)/Revenue General Fund	Other Funds	
INF 19	Better Management Needed For California's Real Estate Assets	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
INF 20	Deteriorating Highway Quality is Costly for Taxpayers	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
INF 21	Supply of Affordable Multi-Family Housing is Inadequate	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
INF 22	Infrastructure Siting for Energy Facilities is Fractured and Inefficient	\$0	CBE	\$0	CBE	\$0	CBE	\$0	CBE	\$0	CBE	CBE
INF 23	Energy Conservation, Efficiency have not Achieved Full Potential	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
INF 24	Transportation Hampered by Unhealthy Fuel Market	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
INF 25	Consolidate the Ratepayer Advocacy and Public Participation Programs at the Public Utilities Commission	\$0	\$0	\$0	CBE	\$0	CBE	\$0	CBE	\$0	CBE	CBE
INF 26	Building Standards Adoption Reform	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
INF 27	Shift Responsibility for Railroad Safety at Roadway Crossings to Caltrans	\$0	\$0	\$0	(\$303)	\$0	\$0	\$0	\$0	\$0	\$0	(\$303)
INF 28	Water, Parks and Wildlife Bond Implementation is Inefficient	\$0	\$0	\$0	\$3,700	\$0	\$3,700	\$0	\$3,700	\$0	\$3,700	\$14,800



## Infrastructure

### Fiscal Impact Table

(Dollars Displayed in Thousands)

Issue Number	Issue Description	2004-05			2005-06			2006-07			2007-08			2008-09			5-Year Cum. Total All Funds
		Savings(General Fund)	(Costs)/Revenue Other Funds		Savings(General Fund)	(Costs)/Revenue Other Funds		Savings(General Fund)	(Costs)/Revenue Other Funds		Savings(General Fund)	(Costs)/Revenue Other Funds		Savings(General Fund)	(Costs)/Revenue Other Funds		
INF 29	Flood Disaster Avoidance	\$0	\$0		\$0	\$12,000		\$0	\$12,000		\$0	\$12,000		\$0	\$12,000		\$48,000
INF 30	Release State Departments from the Real Estate Services Monopoly	\$0	\$0		\$47,500	\$47,500		\$95,000	\$95,000		\$133,500	\$133,500		\$133,500	\$133,500		\$819,000
INF 31	One-Stop Shop for School Facility Approval	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 32	Management of Department of Transportation's Projects Needs to Improve	\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		\$0	CBE		CBE
INF 33	Improve School Facility Standards	\$0	(\$1,000)		\$0	(\$488)		\$0	(\$488)		\$0	(\$488)		\$0	(\$488)		(\$2,952)
INF 34	Create a Mechanism for Flexible, Reliable School Facility Finance	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 35	Early Integration of Infrastructure and Resource Planning Necessary	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 36	Infrastructure is Necessary for Economic Development	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE
INF 37	Streamline the Environmental Review Process to Discourage Sprawl and Revitalize Older Developed Urban Areas	CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE	CBE		CBE



**Infrastructure  
Fiscal Impact Table**  
(Dollars Displayed in Thousands)

Issue Number	Issue Description	2004-05			2005-06			2006-07			2007-08			2008-09			5-Year Cum. Total All Funds
		Savings(Costs)/Revenue General Fund	Other Funds	CBE	Savings(Costs)/Revenue General Fund	Other Funds	CBE	Savings(Costs)/Revenue General Fund	Other Funds	CBE	Savings(Costs)/Revenue General Fund	Other Funds	CBE	Savings(Costs)/Revenue General Fund	Other Funds	CBE	
INF 38	Lengthy Hospital Construction Approvals are Impacting Patient Care	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE	CBE
<b>Infrastructure Total</b>		\$56,087	\$24,388		\$111,700	\$118,740		\$173,000	\$679,976		\$228,500	\$861,276		\$245,500	\$864,076		\$3,363,243

The amounts shown for each year in the above chart reflect the total change for that year from Fiscal Year 2003-04

CBE - Cannot Be Estimated

